

A

Box Patent Application  
Commissioner of Patents  
and Trademarks  
Washington, DC 20231

## NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of

Inventor(s): Lynch et al.

**WARNING:** Patent must be applied for in the name(s) of all of the actual inventor(s). 37 CFR 1.41(a) and 1.53(b).

For (title): System for Transporting Application Settings, Files and Other Data From One Computer to Another  
Computer

## 1. Type of Application

This new application is for a(n) (check one applicable item below):

X  Utility

   Design

   Plant

NOTE: If one of the following 3 items apply then complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED and a NOTIFICATION IN PARENT APPLICATION OF THE FILING OF THIS CONTINUATION APPLICATION.

   Divisional

   Continuation

   Continuation-in-part (CIP)

## 2. Benefit of Prior U.S. Application(s) (35 USC 120)

NOTE: If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or where the parent case is an International Application which designated the U.S., then check the following item and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

   The new application being transmitted claims the benefit of prior U.S. application(s) and enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

## 3. Papers Enclosed Which Are Required For Filing Date Under 37 CFR 1.53(b) (Regular) or 37 CFR 1.153 (Design) Application

49  Pages of Specification and Abstract

18  Pages of Claims

30 Sheets of drawing(s)

X Formal

     Informal

NOTE: "Identifying indicia such as the serial number, group and unit, title of the invention, attorney's docket number, inventor's name, number of sheets, etc., not to exceed 2 3/4 inches (7.0cm in width may be placed in a centered location between the side edges within three fourths inch (19.1mm) of the top edge. Either this marking technique on the front of the drawing or the placement, although not preferred, of this information and the title of the invention on the back of the drawings is acceptable." Proposed 37 CFR 1.84(1). Notice of March 9, 1988 (1090 O.G. 57-62).

#### 4. Additional Papers Enclosed

     Preliminary Amendment

X Information Disclosure Statement (37 CFR 1.98)

X Form PTO-1449

X Citations (2 References)

     Declaration of Biological Deposit

     Submission of "Sequence Listing," computer readable copy and/or amendment pertaining thereto for biotechnology invention containing nucleotide and/or amino acid sequence.

     Authorization of Attorney(s) to Accept and Follow Instructions from Representative

     Special Comments

     Other

#### 5. Declaration or Oath

X Enclosed  
executed by (check all applicable boxes)

X inventor(s).

     legal representative of inventor(s). 37 CFR 1.42 or 1.43

     joint inventor or person showing a proprietary interest on behalf of inventor who refused to sign or cannot be reached.

     this is the petition required by 37 CFR 1.47 and the statement required by 37 CFR 1.47 is also attached. See Item 13 below for fee.

☐ Not Enclosed

☐ Application is made by a person authorized under 37 CFR 1.41(c) on behalf of all the above named inventor(s). (The declaration or oath, along with the surcharge required by 37 CFR 1.16(e) can be filed subsequently).

NOTE: It is important that all the correct inventor(s) are named for filing under 37 CFR 1.41(c) and 1.53(b).

☐ Showing that the filing is authorized. (Not required unless called into question. 37 CFR 1.41(d).

## 6. Inventorship Statement

**WARNING:** If the named inventors are each not the inventors of all the claims an explanation, including the ownership of the various claims at the time the **last** claimed invention was made, should be submitted.

The Inventorship for all the claims in this application are:

☒ the same

or

☐ are not the same. An explanation, including the ownership of the various claims at the time the last claimed invention was made.

☐ is submitted

☐ will be submitted

## 7. Language

☒ English

☐ non-English

☐ The attached translation is a verified translation. 37 CFR 1.52(d).

## 8. Assignment

☒ An assignment of the invention to VIRTUAL ACCESS NETWORKS, INC.

☒ is attached. A separate

☒ "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION" or

☐ FORM PTO 1595 is also attached.

☐ will follow.

NOTE: "If an assignment is submitted with a new application, send two separate letters-one for the application and one for the assignment." Notice of May 4, 1990 (1114 O.G. 77-78).

**9. Certified Copy (35 USC 119)**

Certified copy(ies) of application(s):

(country)	(appln. no.)	(filed)
(country)	(appln. no.)	(filed)

from which priority is claimed

\_\_\_ is/are attached.

\_\_\_ will follow.

**10. Fee Calculation (37 CFR 1.16)**A. X Regular application

CLAIMS AS FILED						
Number filed			Num. Extra		Rate	Basic Fee \$710.00
Total Claims	74	-20=	54	X	\$18.00	\$97200
Independent Claims	8	-3=	5	X	\$80.00	\$400.00
Multiple dependent claim(s), if any	0			X	\$270.00	\$0.00

\_\_\_ Amendment canceling extra claims enclosed.

\_\_\_ Amendment deleting multiple dependencies enclosed.

\_\_\_ Fee for extra claims is not being paid at this time.

NOTE: If the fees for extra claims are not paid on filing, they must be paid or the claims cancelled by amendment, prior to the expiration of the time period set for response by the Patent and Trademark Office in any notice of fee deficiency. 37 CFR 1.16(d).

Filing Fee Calculation \$ 2,082.00

B. \_\_\_ Design application

(\$320.00--37 CFR 1.16(f))

Filing Fee Calculation \$

C. \_\_\_ Plant application

(\$490.00--37 CFR 1.16(g))

Filing Fee Calculation \$

Filing Fee Calculation (50% of A, B or C above)      \$ 1,041.00

## 12. Request for International-Type Search (complete, if applicable)

— Please prepare an international-type search report for this application at the time when national examination on the merits takes place.

**13. Fee Payment Being Made At This Time**

           Not Enclosed

\_\_\_\_ No filing fee is to be paid at this time. (This and the surcharge required by 37 CFR 1.16(e) can be paid subsequently.)

X      Enclosed

<u>X</u>	basic filing fee	\$ <u>1,041.00</u>
----------	------------------	--------------------

<u>X</u>	recording assignment (\$40.00; 37 CFR 1.21(h))	\$ <u>40.00</u>
----------	---	-----------------

\_\_\_\_\_ petition fee for filing by other than all the  
inventors or person on behalf of the inventor  
where inventor refused to sign or cannot be  
reached. (\$130.00; 37 CFR 1.47 and 1.17(h)) \$\_\_\_\_\_

\_\_\_\_\_ for processing an application with a  
specification in a non-English language.  
(\$130.00; 37 CFR 1.52(d) and 1.17(k)) \$\_\_\_\_\_

\_\_\_\_\_ processing and retention fee  
(\$130.00; 37 CFR 1.53(d) and 1.21(l)) \$\_\_\_\_\_

\_\_\_\_\_ fee for international-type search report  
(\$40.00; 37 CFR 1.21(e)) \$ \_\_\_\_\_

**Total fees enclosed** **\$ 1,081.00**

**14. Method of Payment of Fees**

- ☒ Check in the amount of \$ 1,081.00.
- ☐ Charge Account No. 12-0010 in the amount of \$ \_\_\_\_\_. A duplicate of this transmittal is attached.

NOTE: Fees should be itemized in such a manner that it is clear for which purpose the fees are paid.

**15. Authorization to Charge Additional Fees**

**WARNING:** If no fees are to be paid on filing, the following items should not be completed.

**WARNING:** Accurately count claims, especially multiple dependent claims, to avoid unexpected high charges, if extra claim charges are authorized.

- ☒ The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Account No. 12-0010 :

- ☐ 37 CFR 1.16(a), (f) or (g) (filing fees)
- ☐ 37 CFR 1.16(b), (c) or (d) (presentation of extra claims)
- ☒ **Any deficiencies in the fees provided.**

NOTE: Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid or these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency, it might be best not to authorize the PTO to charge additional fees, except possibly when dealing with amendments after final action.

- ☐ 37 CFR 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application.)
- ☐ 37 CFR 1.17 (application processing fees)
- ☐ 37 CFR 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 CFR 1.311(b)).

**16. Instruction As To Overpayment**

- ☒ credit Account No. 12-0010
- ☐ refund

Reg. No. 34,368  
Tel. No. (703) 415-1015

Frank W. Searles

**SIGNATURE OF APPLICANT'S REPRESENTATIVE**  
Randy W. Lacasse

Lacasse & Associates  
2001 Jefferson Davis Hwy, Suite 806  
Arlington, VA 22202

**X**      **Incorporation by reference of added pages**

Check the following item if the application in this transmittal claims the benefit of prior U.S. application(s) (including an international application entering the U.S. stage as a continuation, divisional or C-I-P application) and complete and attach the ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

\_\_\_\_ Plus added pages for new application transmittal where benefit of prior U.S. application(s) claimed.

Number of pages added \_\_\_\_\_

X Plus added pages for papers referred to in Item 4 above

Number of pages added 2 pages & 2 references

X Plus "Assignment Cover Letter Accompanying New Application"

Number of pages added 4 pages

**Statement Where No Further Pages Added**

**VERIFIED STATEMENT CLAIMING SMALL ENTITY STATUS  
(37 CFR 1.9(f) & 1.27(b))--INDEPENDENT INVENTOR**

Docket Number (Opt)  
PA-1003222

Applicant or Patentee: Lynch et al.

Serial or Patent No.: New Application

Filed or Issued:

Title: System for Transporting Application Settings, Files and Other Data From One Computer to Another Computer

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office described in:

☒ the specification filed herewith with title as listed above.

☐ the application identified above.

☐ the patent identified above.

I have not assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed or licensed or am under an obligation under contract or law to assign, grant, convey or license any rights in the invention is listed below:

☐ No such person, concern or organization exists.

☒ Each such person, concern or organization is listed below:

VIRTUAL ACCESS NETWORKS, INC.

Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Gerard D. Lynch  
NAME OF INVENTOR

Signature of Inventor

Date 10/27/00



**VERIFIED STATEMENT CLAIMING SMALL ENTITY STATUS  
(37 CFR 1.9(f) & 1.27(b))—INDEPENDENT INVENTOR**

Docket Number (Opt)  
PA-1003222

Applicant or Patentee: Lynch et al.

Serial or Patent No.: New Application

Filed or Issued:

Title: System for Transporting Application Settings, Files and Other Data From One Computer to Another Computer

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office described in:

☒ the specification filed herewith with title as listed above.

☐ the application identified above.

☐ the patent identified above.

I have not assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed or licensed or am under an obligation under contract or law to assign, grant, convey or license any rights in the invention is listed below:

☐ No such person, concern or organization exists.

☒ Each such person, concern or organization is listed below:

VIRTUAL ACCESS NETWORKS, INC.

Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Dana Bruce Berenson  
NAME OF INVENTOR



Signature of Inventor

10/27/00

Date

**VERIFIED STATEMENT CLAIMING SMALL ENTITY STATUS  
(37 CFR 1.9(f) & 1.27(b))--INDEPENDENT INVENTOR**

Docket Number (Opt)  
PA-1003222

Applicant or Patentee: Lynch et al.

Serial or Patent No.: New Application

Filed or Issued:

Title: System for Transporting Application Settings, Files and Other Data From One Computer to Another Computer

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office described in:

☒ the specification filed herewith with title as listed above.

☐ the application identified above.

☐ the patent identified above.

I have not assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed or licensed or am under an obligation under contract or law to assign, grant, convey or license any rights in the invention is listed below:

☐ No such person, concern or organization exists.

☒ Each such person, concern or organization is listed below:

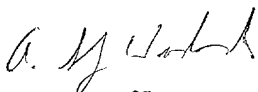
VIRTUAL ACCESS NETWORKS, INC.

Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Andrew Shay Woodard  
NAME OF INVENTOR

  
Signature of Inventor

Date 11/01/2000

**INVENTOR:**

Lynch

**TITLE:**

# System for Transporting Application Settings, Files and Other Data From One Computer-based device to Another Computer-based device

## BACKGROUND OF THE INVENTION

### Priority

The present application claims the benefit of provisional patent application "System for Transporting Application Settings, Files and Other Data from One Computer to Another Computer", serial number 75/836,301, filed March 29, 2000.

### Field of Invention

The present invention relates to a method and system for transferring, via the HTTP protocol, application settings, files and other data from a first computer-based device (e.g., an older PC) including, but not limited to, wired PCs /workstations, etc., wireless electronic devices (e.g., laptops, palm-based systems, telephones, WAP devices, etc.), to a second computer-based device, such as a new replacement PC, so that the second computer-based device will have a substantially similar operating environment as the first computer-based device.

### Background of the Invention

In the enterprise, industrial and residential marketplaces, computer-based devices and information applications have become standard. In addition to the continued growth of computer use, turnover of computer-based has increased as newer and better ones are produced. As a result, businesses and individual computer-based device users are frequently replacing their computer-based with the latest models. This trend will undoubtedly continue as the price of computer-based devices continues to decrease and the need for processing power increases.

One major problem associated with purchasing a new computer-based device is

reconfiguring the new system to have the identical or similar operating environment as the one being replaced. Although a user may be interested in a new computer-based device's increased speed or storage capacity, the user typically wants the new computer-based device to have the same "feel" as the one being replaced.

Computer users typically arrange their personal or work computer to suit their preferences. For example on a PC, desktop settings, such as the background design on the monitor, e.g., the "wallpaper", desktop settings or automatic start-up commands are frequently customized. Over time, individuals will normally store certain software applications and data on their PCs. These applications are typically customized to suit the individual user's particular preferences. For instance, with regard to a word processing application, the user may specify a preferred default font, a custom page layout, customized spell-checking dictionaries, and easy access to frequently retrieved files.

More recently, users tend to personalize their computer-based devices so that certain Internet features are stored for later use. For example, users normally customize their computer-based devices to allow easy dial-up access to their preferred Internet service provider or to save their favorite World Wide Web ("WWW") sites, e-mail addresses, browser bookmarks, etc. At the present time, a user must endure both the time and effort to customize every new device that they purchase. No method exists to easily enable the user to selectively direct transference of the "look and feel" or content of existing devices to new or other devices which may differ in format, form factor, capacity, platform, operating system or function. It would be useful to carry the user's configuration from device to device without requiring the user to reconfigure each time (i.e., customizing hardware and software settings, reloading software and files, etc.).

When a user purchases a new replacement computer-based device, it can take many hours

to reconfigure the replacement so that the operating environment is similar to the environment of the original. Most software applications are customized according to each individual user's personal preferences. By simply reloading the original software program discs on the replacement computer-based device, the user will lose all of his or her personal preferences. Thus, the user must reconfigure all the applications so they are customized to his or her liking. Not only can this process be time consuming, but it can also be technically difficult for those users with moderate computer-based device experience. In addition, older software applications may be incompatible with the newer computer-based device's operating system, or may require upgrades, and this may further complicate the transfer process.

Normally, the transfer is conducted by one of a variety of tedious and time-consuming methods. A user may opt to copy all the files on the older computer-based device onto a disc or some other storage device and then reload the files on the new computer-based device. This method is extremely time consuming and may possibly be technically infeasible for some users. For instance, many application files are so large that they cannot be stored on a single standard floppy disc or other smaller storage device, thereby making this method unworkable.

Another method involves physically connecting the older and the new systems to one another through some type of compatible cable or networking. After the devices are connected, the user can directly transfer files from one computer-based device to another. This procedure requires the equipment necessary to connect the two computer-based devices to one another, and the steps necessary to make the appropriate transfer is typically beyond the knowledge of most conventional computer-based device users. Even if a user was sufficiently knowledgeable about facilitating such transfer, the present invention expedites the transfer of the desired information.

Each of the options discussed above are time consuming, technically demanding on the

user and fail to allow conversion between differing devices, differing software, hardware, platforms, environments, communications standards, etc. Most consumer users, especially residential users, do not have the resources or the know how to undertake the transfer of the appropriate files and settings from one computer-based device to another in a quick and efficient manner. In the enterprise or industrial environment, introducing new computer-based devices or moving/upgrading existing ones becomes a burden because of compatibility, loss of data, and time issues.

What is needed is a system and method which can provide an easy, fast and comprehensive transference of settings, software, and data, while considering modifications thereof based on compatibility, the selected receiving device and user selections. Whatever the precise merits, features and advantages of the prior art, it fails to achieve or fulfill the purposes of the present invention.

### Summary of the Invention

Wherefore, it is an object of the present invention to overcome the above noted drawbacks associated with customizing a second computer-based device, e.g. a new replacement PC, to operate in substantially the same fashion as a first older PC to be replaced.

A further object of the invention is to facilitate a quick and easy method and system for transferring various application settings, files and other personal data from a first computer-based device to a secure temporary storage site and, thereafter, allow the temporarily stored files, settings and other data to be retrieved from the temporary storage site and downloaded onto a second computer-based device, e.g. a new replacement PC, so that the second device will have substantially the same operating environment and personalized feel as the first one.

A further object of the invention is to facilitate a quick and easy method and system for backing-up various application settings, files and other personal data for a computer-based device, storage to a secure temporary storage site and, thereafter, allow the temporarily stored files, settings and other data to be retrieved from the temporary storage site and downloaded back (restore function) to the computer-based device, so that it will continue to have substantially the same operating environment and personalized feel.

A further object of the present invention is to streamline the transportation of the desired application settings, files and other personal data from a first computer-based device to a second computer-based device, without requiring the user to install or use any cabling, other than a conventional connection to the Internet which, in most circumstances, already exists on the first computer-based.

A further object of the present invention is to streamline the transportation of the desired



application settings, files and other personal data in an enterprise or industrial environment, from a first computer-based device to a second computer-based device, e.g. a new replacement computer-based device, without requiring the user to install or use any cabling, other than a conventional connection to an internal LAN, WAN, Intranet or virtual network.

Another object of the present invention is to provide a method and system which initially scans the original first computer-based device to determine the manufacturer, brand, type, version, model, etc., of any software, communications parameters, mouse, keyboard, monitor, printer and other peripherals installed on or electrically coupled to the first computer-based device.

Yet another object of the present invention is to provide a method and system in which the user of the method and system is readily able to select the desired applications settings, files and other data that are to be transferred from the original, first computer-based device to the temporary storage site and also facilitate selection of the files, settings and other personal data to be downloaded, from the temporary storage site onto a second computer-based device, e.g. a new replacement computer-based device.

Still another object of the present invention is to facilitate scanning of the second computer-based device, e.g. the new replacement computer-based device, prior to the downloading of any of application settings, files and other data to ensure that the second computer-based device has the necessary capabilities, e.g. hardware, software, etc., to allow downloading of the temporarily saved files, settings and other personal data on the second computer-based device.

Another object of the present invention is to utilize the HTTP protocol over the Internet, WWW, LANs or other communications networks to facilitate and streamline the process of

transferring the application settings, files, data and other personal settings from the first computer-based device to the temporary storage site and finally onto the second computer-based device with little or no technical know how related to the transfer process. The user can simply follow easy and thorough directions supplied by the graphical user interface (GUI), such as e.g., web page interface, operated as part of this invention.

A still further object of the present invention is to facilitate a simple manner in which software applications, installed on the first computer-based device, can be scanned and checked against the currently available versions of each respective application contained on that computer-based device. This can be done in order to determine whether the user possesses the most current version of a particular software application. In the event that the user does not possess the most current version of a particular software application, the system and method will alert the user to that fact and provide the user with the option to make an on-line purchase of the appropriate upgrade of that particular software application for the second new computer-based device.

Yet another object of the present invention is to provide a system which allows computer-based devices, employing a variety of different operating systems, to interact with the website of the server system.

Yet another object of the present invention is to provide a system which allows computer-based devices, employing a variety of different communications standards, to interact with the website of the server system.

A further object of the present invention is to streamline the transportation of the desired application settings, files and other personal data in a consumer, enterprise or industrial environment, employing computer-based devices with a variety of different hardware and

software formats.

A further object of the present invention is to streamline the transportation of the desired application settings, files and other personal data using an XML-based solution.

A further object of the present invention is to provide a simple reconnection mechanism to an Internet Service Provider (ISP) and also provide a method and apparatus that allows a user to "undo" a download for one reason or another.

Still another object of the present invention is to provide a system which allows various offers to be presented and allows various advertisers to target specific users based upon the user operating environment information acquired and categorized by the present invention, during the scan of the computer-based devices, to ensure that extremely relevant offers and advertising materials are presented to the users of the scanned computer-based devices with respect to privacy.

The present invention relates to a method for transferring information from a first computer-based device to a web site, for temporary storage and for later transfer of the stored information from the web site to a second computer-based device, the method comprising the steps of: establishing a communication link between a first computer-based device and a web site having a storage capability; scanning the first computer-based device, via the web site, to determine the information contained on the first computer-based device; allowing a user to select which of the scanned information, determined by the web site, is to be uploaded from the first computer-based device onto the web site for temporary storage; and transferring the information, contained on the first computer-based device and selected by the user, onto the web site for temporary storage.

The present invention relates to a system for transferring information from a first

computer-based device to a web site, for temporary storage and for later transfer of the stored information from the web site to a second computer-based device, the system comprising: means for establishing a communication link between a first computer-based device and a web site, the web site having storage means for temporary storage of information; means for scanning the first computer-based device, via the web site, to determine the information contained on the first computer-based device; means for allowing a user to select which of the scanned information, determined by the web site, is to be uploaded from the first computer-based device onto the web site for temporary storage; and means for transferring the information, contained on the first computer-based device and selected by the user, onto the web site for temporary storage.

These and other objects and advantages of the present invention will become more apparent after consideration of the following description and the accompanying drawings.

,

accompanying drawings in which:

Internet embodiment.

server according to the present invention;

invention.

invention.

accepting an advertisement or order.

storage, conversion and downloading to a differing computer-based device;

computer-based device;

present invention;

Fig. 9 is a diagrammatic illustration of a partial CAD implementation.

Fig. 10 is a diagrammatic illustration of the architecture of the present invention in an

enterprise or industrial embodiment.

Fig. 11 is a diagrammatic flow diagram illustrating a back-up routine transferring application settings, files, and other data from a first computer-based device onto the web site for temporary storage and returning thereof.

Fig. 12 is a diagrammatic flow diagram illustrating transferring application settings, files, and other data from a first computer-based device onto the web site for temporary storage and returning thereof to one or more second computer-based devices of a differing format.

Fig. 13 is a diagrammatic flow diagram illustrating a software version upgrade routine performed during transferring application settings, files, and other data from a first computer-based device to a second computer-based device.

Figures 14-28 collectively illustrate, through screenshots, a working example of the present invention.

## DESCRIPTION OF THE PREFERRED EMBODIMENTS

While this invention is illustrated and described in a preferred embodiment, the device may be produced in many different configurations, forms and materials. There is depicted in the drawings, and will herein be described in detail, a preferred embodiment of the invention, with the understanding that the present disclosure is to be considered as an exemplification of the principles of the invention and the associated functional specifications for its construction and is not intended to limit the invention to the embodiment illustrated. Those skilled in the art will envision many other possible variations within the scope of the present invention. Specifically, the preferred embodiment will be described using an upgrade of an old PC to a new PC, however the present invention can be applied equally to any computer-based device without departing from the scope and spirit intended.

Throughout the following descriptions, figures and claims, the terms PC, computer and computer-based device may be interchanged without departing from the scope of the present invention. The process of transferring settings, etc. from the first computer-based device to the server is referred to as the “load” or equivalently “upload” stage. The process of transferring settings, etc. from the server to the second computer-based device is referred to as the “unload” or equivalently “download” stage. In addition, the term “van” is used when referring to the collected settings, files and personal data.

With reference to Figs. 1 and 2, a brief general description of the present invention will first be provided and this will then be followed by a detailed description of the present invention.

As shown in Fig. 1, a first PC, generally designated as **100**, has an internal or external modem (not shown) which is electronically coupled by a conventional connection **102** (wired or wireless) to a communication system, e.g. the Internet (preferred for consumer environment),

some other desired local area network (LAN - preferred for enterprise environment), wide area network (WAN), virtual private network (VPN), Intranet, wireless web, or equivalents, generally designated as **104**. The PC **100** is also electrically coupled to a display device, e.g. a monitor, by conventional cabling, an input device, e.g. a keyboard, by conventional cabling, and to a mouse.

As with typical computer-based devices, the PC **100** also has a plurality of internal components (not separately designated or shown) such as a central processing unit (CPU), some ROM, some RAM, a hard disc drive, and internal computer software. The PC **100**, is typically loaded with conventional software, some of which was initially installed on the computer-based device at the time of purchase, while a remainder of the computer software may have been periodically installed by the user in a conventional manner. It is to be appreciated that a variety of other PCs **106**, having similar components, may also be simultaneously connected to the website of the server system **108**. For the sake of simplicity, an explanation relating to the transfer of information from only one PC **100** to a second PC **106** will be provided. Additional applicable embodiments include, but are not limited to, one-to-plural, plural-to-one and one-to-itself (e.g., using the present invention to backup or restore only the first PC).

As can be seen in Fig. 2, a block diagram of the server system, showing the components **200** that facilitate allowing a user to transfer application settings, files and other data from a first computer-based device onto the web site for later retrieval by another computer-based device, is shown. The website of the server system **200** comprises conventional processors **202** which are electrically coupled, in a conventional manner, to a plurality of databases, such as a content database **204**, a user database **206**, a binary database **208**, and an e-commerce database **210**.

Processors **202** comprise and operate the programmed routines that run on the first computer-based device **100** and the second computer-based device **106** to scan those computer-



based devices and detect the software applications, application settings, files and hardware data, and any other information necessary for a successful transfer of desired information. After scanning both the first and second computer-based devices involved in the transfer of information (as discussed below in further detail), the SMOD then compare and correlate the relevant data from the first computer-based device **100** with that of the second computer-based device **106** to determine what application settings, files and other data are available for transfer. The processors **202** facilitate displaying of this information to the user and ultimately facilitate the transfer of the application settings, files and other data that the user selects to be transferred from the first computer-based device **100** into storage and later onto the second computer-based device **106**, as discussed below.

Server system **200** also comprises one or more individual databases **204-210** to enable the storage and retrieval of user data, web site content data, internal use data, data regarding current software application versions, and other miscellaneous data. The processors **202** are able to interact with each database to retrieve data necessary to carry out the desired routines. The processors **202** are also able to interact with each of the individual databases in order to store data within those databases.

This server system **200** contains a content database **204** for the purpose of storing any data (WAF) that is displayed to the user, e.g., GUIs, web site pages, advertisements, offers, etc., as well as any data related to applications and application settings obtained from the manufacturers of the respective software applications. This database will be updated frequently to continually contain the most current data regarding software applications and their application settings.

Server system **200** also contains a user database **206** for the purpose of storing data

related to each individual user's computer-based device, personal profile, applications, account number, login password to the system server, etc. The processors **202** will utilize this user data to facilitate the transfer process. The user data can also be used to trigger the server system to display to the user, via the web site, advertisements and offers targeted to the user's particular profile, as discussed below in further detail.

Server system **200** also contains a Binary Database **208** to store binary files, e.g., documents, e-mails, address books, etc. uploaded from the first computer **100**. The user selects specific data stored for download to the second computer **106**.

Server system **200** also contains an e-commerce database **210** to store data related to on-line purchases by the user with relation to the transfer process. For instance, during the transfer process, the server system may have detected and informed the user that a software application on the first computer-based device **100** has since been upgraded. In turn, the user may decide to purchase, through the server system, the most recent upgraded version of the software for the second computer-based device. All the data necessary for this purchase, e.g. credit card information, billing information, etc., can be handled and stored in this database.

A overview of the process of uploading and temporarily storing settings, files and other data on the web site of the server system **200**, for later transfer to a new replacement second computer-based device **106**, will now be described with reference to Figs. 1 and 3. When a user of the first computer-based device **100** desires to replace the first computer-based device **100** with a second computer-based device **106**, for example, the user accesses the web site of the appropriate server system **108**, via the communication system (e.g., modem - not shown) and the conventional connection **102** of the first computer-based device **100**, to transfer various software applications, files, settings and other data of the first computer-based device onto the web site of

the appropriate server system **110** for later transfer to the second computer-based device, e.g. a replacement computer-based device **106**.

The user of the computer-based device **100** accesses the website of the server system **200** by initializing the modem and communicating with the web site of the server system via the communication system, in a conventional fashion, at step **300** (Fig. 3). As such connection is conventional and well known in the art, and forms no part per se of the present invention, a detailed description concerning the same is not provided.

Once a communication link is established, at step **300**, between the first computer-based device and the web site of the server system, the user sets up a personal account to be maintained by the server system, at step **304**, to which all of the files, settings and other data to be uploaded from the first computer-based device are to be temporarily stored. This personal account is assigned a suitable password, in a conventional manner at step **306**, by the user prior to uploading all of the desired files, settings and other data from the first computer-based device.

Then, the user of the first computer-based device can download software (client ATL DLL - CAD) from the server system, at step **302**, so that the user can then interact with the website of the server system to select the desired setting, files, information and other data to be uploaded from the first computer-based device **100** for temporary storage and later retrieval as desired.

After the user downloads the necessary software (client ATL DLL- CAD) from the web site of the server system to the first computer-based device, via the communication system, the user can then begin interacting with the web site of the server system, and the user requests the server system, via the server system's web site, to initially read or scan all of the software applications and other data stored on the first computer-based device, at step **308**. During this

initial scanning process, the manufacturer, the brand, the version, the type, etc., are determined for each installed software application(s), mouse, keyboard, monitor, printer and other peripherals and the personal settings designated for each software application as well as other information concerning the operating environment of the first computer-based device are ascertained. Upon completion of the initial scanning step, this scanned information is temporarily stored in the user database **206** of the web site of the server system, at step **310**.

Once the user's personal account has been set up, the user requests the server system, via the server system's web site, to initially read or scan all of the software applications and other data stored on the first computer-based device, at step **308**. During this initial scanning process, the manufacturer, the brand, the version, the type, etc., are determined for each installed software application(s), mouse, keyboard, monitor, printer and other peripherals and the personal settings designated for each software application as well as other information concerning the operating environment of the first computer-based device are ascertained. Upon completion of the initial scanning step, this scanned information is temporarily stored in the user database **206** of the web site of the server system, at step **310**.

Next, the web site of the server system then determines, at step **312**, which advertisement(s) and/or offer(s), stored in the web site of the server system, are applicable and are to be presented to the user of the first computer-based device. Once such advertisement(s) and/or offer(s) information is determined, this information will be displayed to the user, at step **314**. In the event that the user would like to purchase, accept, agree to, enroll, etc., any of the advertisement(s) and/or offer(s) presented to the user, the user can click on a desired location of the display screen displaying the advertisement(s) and/or offer(s) information which will allow the user to purchase, accept, agree to, enroll, etc. such advertisement(s) and/or offer(s) and

the system proceeds to step **500** (Fig. 5). Otherwise, the user can decline the advertisement(s) and/or offer(s) by entering or clicking on a “No Thanks”, or other related area or button to decline the same.

In the event that the user decides to accept an advertisement or offer, the system will proceed to step **510** where all the necessary information from the user is obtained. Specifically, depending upon the advertisement or offer accepted by the user, the following information may be obtained from the user, at step **510**, e.g. credit card information to pay for ordered computer-based device software or updated version of the software, a mailing address or e-mail address to which the requested information, promotional material, further advertisements, survey, etc., may be send or directed, etc. It is to be appreciated that the type or kind of information to be obtained from the user can vary from application to application and is dependent specifically on the product, item, good and/or service being promoted or offered to or accepted by the user. Next, at step **520**, the system makes the necessary arrangements to either send or mail the ordered or requested product, item, good and/or service to the user or to forward the same directly to the user, via the Internet. Finally, at step **530**, this system returns to step **318**.

Following completion of this initial scanning procedure, the web site of the server system then displays a GUI to the user, at step **318** via the web site of the server system, said GUI includes a prompt for the user to select the desired application setting(s), file(s), and other data which are to be uploaded from the first computer-based device, via the communication system, and temporarily stored in the personal account of the user set up at the web site of the server system. The server system will also display to the user the estimated upload time for uploading all of the selected settings, files and other data onto the server system. Preferably the displayed estimated time value will increase or decrease, as appropriate, as the application setting(s),

file(s), and other data which are to be uploaded are selected or canceled (once selected) by the user. After the user has selected all of the desired settings, files and other data to be uploaded, the web site of the server system will then prompt, at step **320**, whether or not to begin the uploading process of the select application setting(s), file(s), and other data from the first computer-based device to the web site of the server system.

In the event that the user initiates the uploading process, at step **322**, the web site of the server system then interacts with the first computer-based device, via the communication system, to coordinate the sequential transmission of all of the selected settings, files, and other data, which are to be uploaded from the first computer-based device and temporarily stored in the personal account of the user at the server system. Once this upload process is completed, the web site of the server system then confirms whether or not, at step **324**, a successful transfer of all of the selected application setting(s), file(s), and other data from the first computer-based device to the web site of the server system has occurred. If the web site of the server system determines that such transfer was successfully completed, the web site of the server system sends a message, at step **326**, confirming the same to the user. If all of the selected application setting(s), file(s), and other data to be transferred from the first computer-based device to the web site of the server system were successfully received by the web site of the server system, the user can then exit from the web site of the server system, at step **328**, in a conventional manner. Thereafter, these uploaded files, settings, and other data will remain temporarily stored in the personal account of the user at the web site of the server system for a predetermined period of time, e.g. a year or so, or until the user retrieves all of the temporarily stored files, settings and other data from the personal account of the user at the web site of the server system, e.g. once the user has purchased a new computer-based device and downloads all of the temporarily stored

settings, files, and other data to the new computer-based device **106**.

If the web site of the server system determines that some or all of the selected application setting(s), file(s), and other data, transferred from the first computer-based device, were not successfully received by the web site of the server system, then the web site of the server system sends an error message, at step **316**, indicating this and the system returns to step **318** to attempt another transfer of the selected application setting(s), file(s), and other data, transferred from the first computer-based device to the web site of the server system, as described above.

The process of downloading the temporarily stored settings, files, and other data onto a second computer-based device **106**, e.g. a newer replacement computer-based device, will now be described initially with reference to Figures 1, 4a and 4b. The second computer-based device, generally designated as **106**, has an internal or external modem electronically coupled by a conventional connection to the communication system, e.g. the Internet, some other desired local area network, etc., generally designated as **104**. The second computer-based device **106** is also electrically coupled to a display device, e.g. a monitor, by conventional cabling, an input device, e.g. a keyboard, by conventional cabling, and to a mouse by conventional cabling. As with typical computer-based devices, the computer-based device **106** also has a plurality of internal components (not separately designated or shown) such as a central processing unit (CPU), some ROM, some RAM, a hard disc drive, and internal computer-based device software. The computer-based device, is typically loaded with conventional software, some of which was initially installed on the computer-based device at the time of purchase while additional computer-based device software may have been periodically installed on the computer-based device by the user in a conventional manner. It is to be appreciated that a variety of other second computer-based devices, having similar components, may also be simultaneously connected to

the web site of the server system.

When the user desires to transfer some or all of the temporarily stored files, settings and other data to a second computer-based device, the user contacts the web site of the server system via the second computer-based device, at step **400** (Fig. 4a). The second computer-based device **106** contacts the web site of the server system via the second computer-based device's modem and the Internet in a conventional fashion. Once a communication link is established, at step **401**, between the second computer-based device **106** and the web site of the server system, the user accesses his or her personal account during step **404**, by entering the previously assigned account number and selected password in a conventional manner. Assuming that the personal account is successfully accessed by the user at step **406**, i.e. the correct account number and password information are provided, the user is then provided access to the previously uploaded settings, files and other data of the user temporarily stored in the personal account at the server system. Otherwise, the user is not provided access to the previously uploaded settings, files and other data.

Then, the user of the second computer-based device downloads computer-based device software (client ATL DLL - CAD) from the server system, at step **402**, enabling the user to interact via the web site of the server system to select and download the desired setting, files, and other data which were previously stored for later retrieval.

Assuming that the personal account is successfully accessed, the user directs the server system to read or scan the internal components of the second computer-based device **106**, at step **408**, to determine essential hardware and storage information, the manufacturer, the brand, the version, etc. of each installed software application, mouse, keyboard, monitor, printer, and other peripherals as well as other information concerning the operating environment of the second



computer-based device. The information read during the scanning step is temporarily stored, at step **410**, at the server system. The website of the server system then performs routines, at step **412**, to compare and correlate the scanned and stored information of the first computer-based device of that user to the scanned information of the second computer-based device of that user. During this process, the website of the server system correlates the software applications, application settings and other operating information environment of the first computer-based device **100** to the second computer-based device **106**. The server system will determine whether the particular application settings, stored on the web site of the server system, are from the most recent version(s) of that particular software or whether there are other currently available versions of that particular software which are not present on the second computer-based device. In the event that the web site of the server system detects that a more recent version(s) of a particular software application is/are available, the web site of the server system will convey that information to the user. Furthermore, the web site of the server system will provide to the user the option, at step **420**, of purchasing the most recent upgrade of the particular software application, via an on-line purchase over the Internet. If the purchase of the upgrade is accepted, the web site of the server system will either download or ship the software directly to the user to install on the second computer-based device and bill the user for the same.

After this correlation step is complete, the web site of the server system identifies and displays to the user, at step **414** via the web site of the server system, the application settings and other operating environment information that are possible to be transferred from the first computer-based device **100** to the second computer-based device **106** and also displays to the user any application settings and other operating environment information that are not possible to be transferred from the first computer-based device to the second computer-based device. The

website of the server system, will then prompt the user, at step **416**, to select all or a certain portion of the stored files, settings and other data from the first computer-based device which are to be downloaded from the personal account of the user at the web site of the server system to the second computer-based device, via the communication system. As the user selects all of the desired files, settings and other data to be downloaded, the web site of the server system will then display to the user the estimated time it will take for downloading all of the selected files, settings and other data from the personal account of the user at the web site of the server system to the second computer-based device.

As with the upload, the web site of the server system can next determine which advertisement(s) and/or offer(s), stored in the web site of the server system, are applicable and are to be presented to the user of the second computer-based device. Once such advertisement(s) and/or offer(s) information is determined, this information will be displayed to the user, at step **418**. In the event that the user would like to purchase, accept, agree to, enroll, etc., any of the advertisement(s) and/or offer(s) presented to the user, the user can click on a desired location of the display screen displaying the advertisement(s) and/or offer(s) information which will allow the user to purchase, accept, agree to, enroll, etc. such advertisement(s) or offer(s), and the system proceeds to step **500** (Fig. 5). Otherwise, the user can decline the advertisement(s) and/or offer(s) by entering or clicking on a "No Thanks", or other related area or button to decline the same and proceed to step **422**.

In the event that the user decides to accept an advertisement or offer, the system will proceed to step **510** where all the necessary information from the user is obtained. Specifically, depending upon the advertisement or offer accepted by the user, the following information may be obtained from the user, at step **510**, e.g. credit card information to pay for ordered computer-

based device software or updated version of the software, a mailing address or e-mail address to which the requested information, promotional material, further advertisements, survey, etc., may be sent or directed, etc. It is to be appreciated that the type or kind of information to be obtained from the user can vary from application to application and depend specifically on the product, item, good and/or service being promoted or offered to or accepted by the user. Next, at step **520**, the system makes the necessary arrangements to either send or mail the ordered or requested product, item, good and/or service to the user or to forward the same directly to the user, via the Internet. Finally, at step **530**, this system returns to step **422**.

After the user has selected all of the desired settings, files and other data to be downloaded, the web site of the server system will then prompt, at step **422**, whether or not to begin the downloading process of the select application setting(s), file(s), and other data from the personal account at the web site of the server system to the second computer-based device.

In the event that the user initiates the downloading process, the web site of the server system then interacts with the second computer-based device **106**, via the communication system **104**, to coordinate the sequential transmission of all of the temporarily stored and selected settings, files, and other data, at step **424**, which are to be downloaded from the personal account of the user at the server system to the second computer-based device. Once this download process is completed, the web site of the server system then confirms, at step **426**, whether or not a successful transfer of all of the selected application setting(s), file(s), and other data from the personal account of the user at the server system to the second computer-based device has occurred. If the web site of the server system determines that such transfer was successfully completed, the web site of the server system sends a message, at step **430**, confirming this to the user. If all of the selected application setting(s), file(s), and other data to

be transferred from the personal account of the user at the server system were successfully received by the second computer-based device, the user can then exit from the web site of the server system, at step **432**, in a conventional manner. Thereafter, the user can either leave these uploaded files, settings, and other data temporarily stored in the personal account of the user at the web site of the server system for an additional period of time, e.g. another year or so, or the user can delete, in a conventional manner, all or a portion of the uploaded files, settings, and other data until the user again retrieves the same. Should a user choose to keep the selected application setting(s), file(s), and other data on the web site of the server system, that user will be able to access the selected application setting(s), file(s), and other data remotely and also be able to use the web site of the server system for on-line back up purposes.

If the web site of the server system determines that some or all of the selected application setting(s), file(s), and other data, transferred from the web site of the server system were not successfully received by the second computer-based device, then the web site of the server system sends an error message, at step **428**, indicating this and the system returns to step **422** to attempt another transfer of the selected application setting(s), file(s), and other data, transferred from the personal account to the second computer-based device, as described above.

A more detailed discussion of the upload/download (load/unload) process of the present invention follows below:

A user will first interact with the system by hitting the homepage of the website controlled by web server **108**. This website is a traditional web server that simply hosts normal company pages. From the home page on this website, the user is able to hit a link **102** to begin using the system. Referring to figure 6, at this point the user's web browser accesses a gateway page on the Web Application Server **108** that allows the system to detect if the user's computer

**100** is capable of interfacing with the core processing of the present invention **602**. If the user fails to meet the criteria **604**(examples would be- JavaScript turned off, browser version not supported, OS not supported, etc), then they get a response page that tells them what they should do to become compatible. If they are compatible, then they get a response page which causes a client ATL DLL , hereafter CAD, to automatically be downloaded **606** and installed on their computer using the Internet Download and Microsoft® authenticode features of Internet Explorer 4/5®. The user will then interact with a graphical user interface (GUI) that is provided by a sequence of webpages **608**. As the user chooses different actions, this is typically executing client-side JavaScript routines **610**. The JavaScript routines are able to call automation methods on the CAD. As an example to facilitate the illustration of the system, consider that the user has clicked a button in a web page that enables loading of their settings into the website. Upon clicking the "load" button, a JavaScript routine will invoke a "LoadSettings" method on the CAD. The CAD starts by making a HTTP call **612** to a Web Application Server to ask it to provide instructions on how to collect the settings that the user has chosen. The HTTP call causes the Web Application Server **108** to run an Active Server Page (ASP) that uses an Active Data Object (ADO) to run a query on a database located at the Database Server **110**. The Database Server returns a result set that contains the information about how to collect each setting **614** (For example, a record in the result set might say that the Outlook- 2000® personal address book is identified by their registry key HKCU\Software\Microsoft\Outlook\PAB). The Active Server Page receives the entire result set from the Database Server **110** in the Active Data Object. The Active Server Page steps through each record in the ADO and converts it into a data stream that uses XML tags to delineate the fields in the records. This XML format of data with the website specific tags is called a directive file. The directive file is returned to the CAD **616** as

a response from the HTTP call. The CAD uses its XML Parser to decode the instructions **618** from the website. It then executes the instructions **620** (For example, it would fetch the value in HKCU\Software\Microsoft\Outlook \PAB). The CAD accumulates the settings data into a local directive file **622** as it runs each instruction. When done, the CAD makes a HTTP POST call to upload the directive file **624** to the Binary Data Server **112**. The CAD then makes a HTTP call to tell the server **108** the settings have been uploaded. Referring to figure 7 at this point, the user would likely interact with some additional web pages and eventually be told to visit the website from their new computer-based device. On the new device **700**, after passing through the same general auto install process just described above (steps **702-710**), they would get to the point where they could click an "UnLoad" button **712**. This would trigger the JavaScript, which invokes an "UnLoad Settings " method on the CAD **714** (now located on the new computer-based device). The client would make a HTTP call **716** to request where it should find the directive file that holds the user's settings. It would then make an HTTP POST call to retrieve the appropriate corresponding directive file to the new computer **718**. Once downloaded, it would decode the directive file and follow the instructions to install the user's settings **720**. In most cases, when done, the user will re-boot **726** and his/her settings will then take effect **722**. An option to undo the load is also given **724**.

The CAD is the module of the system that runs on the end user's old and new PC. Responsibilities here would include scanning of the registry, interaction with the user, and communication with a Web Application Server using "web calls." The client would also upload and download binary data files like bitmaps, Word docs, etc. from a Binary Data Server. Key components to the client are:

- Active Template Library (ATL) based C++ ActiveX control hosted in IE® browser

- Directive processor that follows the actions defined in directive files
- XML parser that encodes and decodes the directive file format

The client ATL DLL CAD is a simple object-oriented system as shown in the UML diagram of figure 8:

- The core DLL **802** maintains the functionality inherited from the ATL foundation classes to provide the ActiveX control support required for the DLL to be hosted by IE 4/5 browsers.
- HttpXfer **804**: This is an object that encapsulates the asynchronous file transmissions that occur to/from the website **108** Web and Binary Data Servers **112**.
- Directive **806**: The Directive object responds to the actions that come from the tags that the XML Parser decodes from directive files.
- XML Parser **808**: This is responsible for decoding directive files.
- A Brain **810**: The Brain (processor) carries out the actions it is dispatched from the Directive object.
- Registry **812** and FileSystem **814**: These objects are used by the Brain (SMOD) to access the settings in the registry and files in the filesystem.

The Web Application Server **108** is a multi-faceted module, which physically may be many servers. Responsibilities here would include serving web pages, processing "web calls", processing e-commerce orders for affiliates, and reporting. Key components would be:

- Stock web pages for Internet presence
- "Stealth" Active Server Pages for application logic in "Web Calls"

- The Database Server **110** module is a data repository for the programming of the present invention system. It services requests from the Web Application Server(s) **108**, reporting systems, and system tools. Key data models of the Database Server are:

- The Binary Data Server 112 receives and transmits binary data files to/from the client.

- Other than functionally being able to serve the present invention operations, this architecture is also intended to offer long-term viability through simple and straightforward ways to gain reliability and scalability in the system. Web Application Servers can be added as demand grows. Because no state is stored in the servers, they can be exact copies of each other.



No changes would be needed to any of the client software or ASPs. Simply add another box, copy the ASPs to it and add it into the round-robin. Through connection pooling, the present invention gets economies of scale with the Database Server **110**. When the time comes, clustering can be used to add capacity. As file space demands increase, Binary Data Servers **112** can be added. With it being possible to have more than one server at each point in the architecture, reliability is easily handled by redundancy of servers at each point.

Figure 9 and its corresponding description below will lay out a basic methodology for settings gathering **900**. Specific settings chosen should not limit the scope of the invention. Any settings, files, programs or data can be substituted therefore using the techniques outlined below.

- Choose an application which needs settings moved **902**.
- Install the application via Instmon (see the Instmon section below) as you may need this information later **904**.
- The first things that must be identified are the base keys in the registry for this application **905**.
  - Usually these are: HKEY\_LOCAL\_MACHINE\Software\<company name>\<app name> and HKEY\_CURRENT\_USER\Software\<company name>\<app name>
  - A combination of registry keys must be found which are unique for this version of the application so the CAD can detect if this particular version of the application is installed on the PC or not. To this end, here is the predominant way of detecting if a particular version of an application exists on a PC.
    - Check to see if a version key exists **906**; like:

<KeyExists>HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\  
Internet Settings\5.0</KeyExists>

- Check to see if the exe is still there on the PC **908**(because an uninstall may not have nuked the registry entries). like:

<FileExistsAtValue>HKLM\SOFTWARE\Microsoft\Windows\CurrentVe  
rsion\App Paths\IEXPLORE.EXE\</FileExistsAtValue>

- Once the set of keys, which will tell if a version of an application is installed, have been found, the application and version can be put in the CDS Products table. Then the identified detection sequence must be added to the ReviewDirective.xml.
- Next the settings to be moved must be identified **910**.
  - Start the application and determine exactly which settings need to be moved.
  - For each setting identified, look in the registry under root keys identified in the last stage to see if the desired settings are readily available under these keys.
  - It is preferable to move multiple settings at once, so when possible use <StoreRegistryTree> over <StoreKeyValue> (chosen XML tags).
  - If they are not easily identifiable, then a search must be performed. There are many possible ways to find these settings.
    - For text-based settings you can put in a unique string for the data in the application, and then search for that data in the registry using RegEdit.
    - Regmon (see regmon section below) can be run to see where the change was written in the registry.
    - “Advanced Registry Tracer” (see ART section below) can be used to find

- Instmon (see instmon section below) can be used to monitor the installation to find all the keys that the application creates or modifies during its installation.

- 912.** Once all commands have been added, the stored procedure CDS  
spBuildAllSnippets is run to generate the new snippets.

Another note is that there may be helper apps that were conditionally installed with some applications, and these must also be added as their own PIDs. For instance, when you install Word 97 ® from Office97 ® you may also choose to install BookShelf97 ®. If we want to move

[illegible][illegible][illegible]

- [illegible]

- Page 35

7.

### Terminology:

- **SessionID** - A unique one-time limited-use key that allows a user to access the present invention system. It is tied to the IP Address of the user, so part of the process of validating a SessionID is to make sure that the IP Address/SessionID pair in the Session table match up.
- **Action Status** - Variable that helps the actionmanager.asp page control which ASP methods are called

Note: Items in *italics* indicate potential WAF method calls that are invoked for a given item. The parameters are ASP variables that have been populated from the Request object.

1) The login process for a new user (the first time they hit the website) is as follows:

- The user enters the website and is directed to the Login page.
- The user enters their username, password, confirm their password, and email,
- The system passes the information entered by the user on to the Decision page and sets the Action Status to "New Login".
- Because the user is not logged in yet, they are assigned a SessionID of -1.
- The system checks to see if it can find a SessionID using the username and password that

the user typed in. *GetUserInformation(m\_Username,m\_Password)*

- This is a new user, so no SessionID will be found.
- The system checks to see if the current SessionID is valid. It will not be valid, because it is empty. *ValidateSession(m\_\_SessionID)*
- Because the SessionID is invalid, and the Action.Status is "New Login", the system creates a new account for the user. *CreateAccount(m\_Username, m\_Password, m-PasswordConfirm, m\_Email)*
- The user should now have an existing account, so then the system tries to log them in. *Login(m\_Username, m\_Password)*
- When the login occurs, the system creates a new unique SessionID. It also determines the user's IP Address and associates it with the newly created SessionID. The SessionID is then returned to the user.
- The SessionID is passed to every subsequent page thereafter, which the system uses to authenticate the user.
- If the user is inactive for too long of a period of time, their SessionID expires (The current timeout is set to 1 hour). The next time they try to perform an action, they will be informed that their session has timed out and must login again. If the user reaches the PostLoad or PostUnload page, they are automatically logged off of the website, thus destroying their SessionID.
- If the user wishes to, they can log off of the website at any time by clicking the Logoff button. This returns them to the Login page.

- The user enters the website and is directed to the Login page.
- The user enters their username and password.
- The system passes the information entered by the user on to the Decision page and sets the Action Status to "Login".
- Because the user is not logged in yet, they are assigned a SessionID of -1.
- The system checks to see if it can find a SessionID using the username and password that the user typed in. *GetUserInformation(m\_Username, m\_Password)*.
- The user might have an old SessionID in the system, or if they finished their last session and logged off, there will be no SessionID.
- The system checks to see if the current SessionID is valid. It will not be valid, because it is either empty, expired, or came from another IP Address.  
*ValidateSession(m\_SessionID)*
- Because the SessionID is invalid, and the Action Status is "Login", the system tries to log the user in. *Login(m\_Username, m\_Password)*
- When the login occurs, the system creates a new unique SessionID. It also determines the user's IP Address and associates it with the newly created SessionID. The SessionID is then returned to the user.
- The SessionID is passed to every subsequent page thereafter, which the system uses to authenticate the user.
- If the user is inactive for too long of a period of time, their SessionID expires



- 3) When a user refreshes the Decision page:

- 4) When a user refreshes any page, except for the Decision page:

- Page 39

- 5) When a user points 2 browsers to the website from the same machine:

- 6) When a user closes their browser without logging off and then returns to the website from the same computer-based device while their SessionID is still valid:

- 7) When a user closes their browser without logging off and then returns to the website from a different computer-based device while their SessionID is still valid:

- 8) When a user uses the Forward/Back buttons to navigate the website:

- The only page that ever expires is the Decision page, and it expires immediately every time. This means that if you leave it and come back, you must refresh it to view the page.
- If a user's SessionID expires, they can still navigate to pages they have already been to via the Forward/Back buttons. When the user attempts to perform an action, their expired session is detected, and the user must login again.

Dishonest users - The following describe basic methods to prevent various malicious or improper attempts at accesses to the user info stored within the system (e.g., the binary database). These methods are not to be considered all encompassing, but rather illustrative of possible scenarios:

1) A user could try to use the CAD ActiveX control to retrieve settings they don't own:

- All the methods on the CAD that transfer files take a SessionID as a parameter.
- If the CAD is not invoked with a valid SessionID that maps to the current IP Address, the method will fail.

2) A user could try to use the SMOD Server object to retrieve settings they don't own:

- All the methods on the servers that transfer files take a SessionID as a parameter.
- If the SMOD is not invoked with a valid SessionID that maps to the current IP Address, the method will fail.

3) A user could try to steal someone else's Username/Password.

- The only login/session management item passed from page to page in the website system is the SessionID.
- If a user leaves their computer-based device and another user does a "View Source", the only login/session management item that is revealed is their current SessionID.

4) A user could try to access the BDS directly to retrieve settings they don't own:

- All user data files stored on the server are given unique names that have nothing to do with their contents. It would be difficult (but not impossible) to guess a valid IMP filename.
- The BeginTransfer method of the BDS takes a SessionID as a parameter. This method is the main point of entry to the BDS data files.
- The BDS directory is protected by a Username/Password that must be used to invoke any BDS methods. Only the CAD and SMOD objects should know the Username/Password, but it is just another level of security.

Figure 10 illustrates an enterprise embodiment of the present invention. One major concern businesses have is security. In the enterprise embodiment, the storage of the settings, data, files, etc. (van) 1006, is moved within electronic boundaries controlled by the business. In this figure, the basic elements of the system remain the same, however the computer-based

devices are connected over an enterprise internal LAN, WAN, Intranet or virtual network **1002**.

The HTTP protocol is implemented over the selected network. The Web Application Server is replaced by a company managed Network Application Server **1004**. The method of the invention remains essentially the same, modified only by replacing web-based elements with business managed networking elements.

A remote workstation for upgrading, modifying, and/or adding software parameters (e.g., new settings, software versions, etc.) over the Internet **1009**, can exist or optionally be moved within the enterprise environment (physically or electronically, i.e., laptop).

Figure 11 illustrates a single computer-based user device using the present invention. In this embodiment, the user's PC needs the present invention system and method for the purposes of backing-up and restoring system settings, files and data. A van is created and stored in the Binary Data Server **1104**. When the user needs to restore stored information, they simply retrieve and install their stored van.

Figure 12 illustrates an embodiment, which includes computer-based devices comprising multiple formats, e.g., PC **1200**, PDA **1202**, telephone **1203**, and laptop **1204** using the present invention. In this embodiment, a user who has multiple devices may want to duplicate the "look and feel" across each device. A van is created and stored in the Binary Data Server **1104** for the source device (say PC **1200**). Within the system servers, a conversion of the XML directive file into a destination device appropriate format, using tools such as Cocoon (part of Apache's Open Source), is implemented.

Figure 13 illustrates an implementation of software version management during the upload/download process (previously discussed above). During the initial scanning **1302** of computer **100**, a software version is detected **1304**. Using software vendor supplied information

**1316**, a correlation is performed **1306** to determine if newer versions are available. If so, software upgrades are offered for each detected program **1308**. If the user decides against upgrades the process ends **1318**, else, they accept one or more upgrades **1310**. The upgrades are either downloaded electronically or through more conventional means (i.e., mail). Payment is arranged **1314** and the process is terminated.

### WORKING EXAMPLE

A series of screen shots are presented in figures 14-28; these screen shots represent a working example as performed on the website entitled “pcmovingvan”. Figures 14-23 represent the upload/load portion of the present invention; figures 24-28, the download/unload.

Figure 14 illustrates a basic login screen requesting an account holder's e-mail address and password.

Figure 15 illustrates an option screen to load a new van, unload an existing van, delete or rename existing vans as well as an undo selection to undo a previous van load.

Figure 16 illustrates an information screen requesting a “name” for the van you are about to create.

Figure 17 illustrates an information screen indicating that a plug-in (CAD) will be downloaded to your machine.

Figure 18 illustrates an information screen suggesting a security plug-in to secure the data transferred during an existing session.

Figure 19 illustrates a GUI “packing list” for interactive user selection of possible settings and files to be transferred in the user’s van.

Figures 20 and 21 illustrate possible selections for obtaining files to be transferred (if any).

Figure 22 illustrates an information screen (including status) with a game to pass the time while waiting for the actual van upload. In an alternative embodiment, this section contains directed advertising based on an analysis of the requesting computer.

Figure 23 illustrates an information screen indicating completion of the upload sequence.

To now transfer the van to another computer-based device, the user sequences through an unload (after first logging on, as per figure 14).

Figure 24 illustrates an option screen to load a new van, unload an existing van, delete or rename existing vans as well as an undo selection to undo a previous van load (we see the van "van1" created in the upload).

Figure 25 illustrates an information screen indicating that a plug-in (CAD) will be downloaded to your new device.

Figure 26 illustrates a "packing list" of settings and files contained in van1.

Figure 27 illustrates an information screen (including status) with a game to pass the time while waiting for the actual van unload. In an alternative embodiment, this section contains directed advertising based on an analysis of the requesting computer.

Figure 28 illustrates a completed van unload and a recommendation to restart the user's PC (not shown – same as figure23).

It is to be appreciated that essentially all of the components of the web site of the server system will be comprised of multiple software applications, multiple hardware components and potentially multiple hosting locations as is conventionally done in the industry for web site operation.

It is to be appreciated that the specific time during execution of either the upload or the

download routines, that any advertisement(s) and/or offer(s) are presented to the user of the first or second computer-based device can vary from application to application, e.g. the advertisement(s) and/or offer(s) can be presented to the user after the scan of the first or second computer-based device, for example. In addition, a plurality of different advertisement(s) and/or offer(s) can be presented to the user of the first and second computer-based devices during operation of the present invention.

The term "information" as used in the appended claims, is intended to cover the desired applications software settings, file(s) and the data, etc., which are to be conveyed from the first computer-based device to the web site and then from the web site to the second computer-based device.

Since certain changes may be made in the above described method and system for transferring computer-based device software applications, settings and other data from one computer-based device to another computer-based device via a server system of a web site, without departing from the spirit and scope of the invention herein involved, it is intended that all of the subject matter of the above description or shown in the accompanying drawings shall be interpreted merely as examples illustrating the inventive concept herein and shall not be construed as limiting the invention.

The above described invention and its described functional elements are implemented in various computing environments. For example, the present invention may be implemented on a conventional IBM PC or equivalent, multi-nodal system (e.g. LAN) or networking system (e.g. Internet, WWW, wireless web). All programming, GUIs, display panels and dialog box templates, and data related thereto are stored in computer-based device memory, static or dynamic, and may be retrieved by the user in any of: conventional computer-based device



storage, display (i.e. CRT) and/or hardcopy (i.e. printed) formats. The programming of the present invention may be implemented by one of skill in the art of graphics or object-oriented programming.

The main toolsets used for development and construction of a production present invention system are, but not limited to (functionally equivalent programs can be interchanged or added without departing from the scope of the present invention as the exact hardware needs will vary as load testing indicates the capacity of each module. Another consideration is forecasting of the customer base growth rate.):

- Visual Basic® 6.0 SP3 for creating the administrative and management tools
- Visual C++® 6.0 SP3 for creating the CAD
- Visual InterDev® 6.0 SP3 for creating the ASP files used by the Web Application Servers
- Visual SourceSafe ® 6.0 SP3 for source and version control
- Crystal Reports® 7 MR1 for creating reports

## CONCLUSION

A system and method has been shown in the above embodiments for the effective implementation of a system for transporting application settings, files and other data from one computer-based device to another computer-based device. While various preferred embodiments have been shown and described, it will be understood that there is no intent to limit the invention by such disclosure, but rather, it is intended to cover all modifications and alternate constructions falling within the spirit and scope of the invention, as defined in the appended claims. For example, the present invention should not be limited by software/program (e.g., ActiveX ATL control) , computing environment, specific computing hardware or GUI templates.

# CLAIMS

We Claim:

1. A method for transferring the look and feel of at least a first computer-based device to remote computer-based storage, said transfer across HTTP-based networks, said method comprising the steps of:

- a. downloading a software component to manipulate settings;
- b. remotely analyzing said first computer-based device to discover applicable hardware and software settings comprising said environment;
- c. listing settings available for transfer;
- d. downloading instructions to said software component to locate, extract and transfer specified settings from said listed settings, and
- e. storing and uniquely identifying said transferred settings in said remote storage.

2. A method for transferring the look and feel of at least a first computer-based device to remote computer-based storage, as per claim 1, wherein said listing of settings includes supplying an HTML document displaying said list.

3. A method for transferring the look and feel of at least a first computer-based device to remote computer-based storage, as per claim 1, wherein said stored settings are retrieved by one or more requesting devices from said remote storage as identified by said unique identification.

4. A method for transferring the look and feel of at least a first computer-based device to remote computer-based storage, as per claim 3, wherein said retrieval by said one or more requesting devices from said remote storage includes repeating steps a-c for the requesting

4 device.

1 5. A method for transferring the look and feel of at least a first computer-based device to  
2 remote computer-based storage, as per claim 4, wherein said retrieval by said one or more  
3 requesting devices from said remote storage further includes the steps of: loading and installing  
4 on said requesting device a compatible version of said identified stored settings.

1 6. A method for transferring the look and feel of at least a first computer-based device to  
2 remote computer-based storage, as per claim 1, wherein said HTTP-based network comprises the  
3 Internet.

1 7. A method for transferring the look and feel of at least a first computer-based device to  
2 remote computer-based storage, as per claim 1, wherein said HTTP-based network comprises  
3 any of the following networks: Internet, LAN, WAN, virtual LAN, wireless web, or  
4 telecommunications based.

1 8. A method for transferring the look and feel of at least a first computer-based device to  
2 remote computer-based storage, as per claim 1, wherein said downloaded instructions comprise  
3 mark-up based directives comprises any of the following formats: XML, SGML or HTML.

1 9. A method for transferring the look and feel of at least a first computer-based device to  
2 remote computer-based storage, as per claim 8, wherein said mark-up based directives comprise  
3 XML tags which are parsed and executed as per said software component during said locating  
4 and extracting steps.

1 10. A method for transferring the look and feel of at least a first computer-based device to

2 remote computer-based storage, as per claim 1, wherein said settings comprise any from the  
 3 following list: hardware settings, system settings, attached device settings, application settings,  
 4 document settings, desktop settings, files, data, e-mail settings, address book settings,  
 5 bookmarks, and cookies.

1 11. A method for transferring the look and feel of at least a first computer-based device to  
 2 remote computer-based storage, as per claim 1, wherein said at least a first computer-based  
 3 device comprises one or more of the following: personal computer systems, laptops, portable  
 4 computers, net devices, palm computers, and Web and WAP phones.

1 12. A method for transferring the look and feel of at least a first computer-based device to  
 2 remote computer-based storage, said transfer across the Internet, said method comprising:  
 3 downloading a software component to manipulate settings;  
 4 remotely analyzing said first computer-based device to discover applicable hardware and  
 5 software settings comprising said environment;  
 6 listing settings available for transfer;  
 7 downloading instructions to said software component to locate, extract and transfer  
 8 specified settings from said listed settings, said instructions comprising one or more parsed XML  
 9 directives including XML tags identifying at least type and location of desired settings, and  
 10 storing said transferred settings and a unique identifier across said Internet to said remote  
 11 storage.

1 13. A method for transferring the look and feel of at least a first computer-based device to  
 2 remote computer-based storage, as per claim 12, wherein said stored settings are retrieved by one

3 or more requesting devices from said remote storage as identified by said unique identifiers, said  
4 retrieval by said one or more requesting devices from said remote storage including repeating  
5 steps a-c for the requesting device and further including loading and installing on said requesting  
6 device a compatible version of said identified stored settings.

1 14. A system for transferring across a network, computer-based settings, files, and other data,  
2 said system comprising:

3 a network server and associated computer storage, said network server receiving requests  
4 from one or more computer-based devices for transfer of said computer-based settings, files, and  
5 other data;

6 at least a first software plug-in, downloadable from said network server to said requesting  
7 computer-based device(s);

8 one or more mark-up based directive(s) sent from said network server and operative with  
9 said downloaded first software plug-in at said requesting computer-based device(s), and

10 wherein, in a load mode, said one or more mark-up based directive(s) are parsed and  
11 processed by said first software plug-in to return to said associated computer storage, a selected  
12 group of settings, files, and other data associated with said requesting computer-based device(s)  
13 and in an unload mode, said one or more mark-up based directive(s) are parsed and processed by  
14 said first software plug-in to load and install a version of one or more of selected groups stored  
15 within said associated computer storage to said requesting computer-based device(s).

1 15. A system for transferring across a network, computer-based settings, files, and other data,  
2 as per claim 14, wherein said network utilizes the HTTP protocol.

16. A system for transferring across a network, computer-based settings, files, and other data,  
as per claim 14, wherein said network comprises the Internet.

17. A system for transferring across a network, computer-based settings, files, and other data,  
as per claim 14, wherein said network comprises any of: HTTP based, Internet, LAN, WAN,  
virtual LAN, wireless web, or telecommunications based.

18. A system for transferring across a network, computer-based settings, files, and other data,  
as per claim 14, wherein said mark-up based directive(s) comprise any of the following formats:  
XML, SGML or HTML.

19. A system for transferring across a network, computer-based settings, files, and other data,  
as per claim 14, wherein use of said mark-up based directive(s) enables intelligent selection of a  
subset of available settings, files or data.

20. A system for transferring, across a network, computer-based settings, files, and other  
data, as per claim 14, wherein said one or more computer-based devices include any of the  
following: personal computer systems, laptops, portable computers, net devices, palm computers,  
or Web and WAP phones.

21. A system for transferring, across a network, computer-based settings, files, and other  
data, as per claim 14, wherein said computer-based settings or files comprise any of the  
following: hardware settings, system settings, attached device settings, application settings,  
document settings, desktop settings, e-mail settings - including address book settings,  
bookmarks, or cookies.

1 22. A system for transferring, across a network, computer-based settings, files, and other  
2 data, as per claim 14, wherein, in a back-up mode, a single computer-based device requests the  
3 load and, in a restore mode, the unload.

1 23. A system for transferring, across a network, computer-based settings, files, and other  
2 data, as per claim 14, wherein system enables personal computer upgrades by loading a first  
3 older computer's environment comprising said settings, files and other data into said associated  
4 storage and thereafter uploading a version of said environment compatible with a new personal  
5 computer.

1 24. A system for transferring, across a network, computer-based settings, files, and other  
2 data, as per claim 14, wherein at least one of said one or more mark-up based directive(s)  
3 comprises a review directive to analyze existing computer-based settings, files, and other data on  
4 said requesting computer-based device.

1 25. A system for transferring, across a network, computer-based settings, files, and other  
2 data, as per claim 14, wherein said system further comprises a converter to translate said stored  
3 computer-based settings, files, and other data into various device compatible formats based on  
4 said review directive.

1 26. A system for transferring, across a network, computer-based settings, files, and other  
2 data, as per claim 14, wherein at least one of said one or more mark-up based directive(s)  
3 provides instructions to said downloaded plug-in to locate and extract computer-based settings,  
4 files, and other data from a registry and file system of said requesting computer-based device.



1 27. A system for transferring, across a network, computer-based settings, files, and other  
2 data, as per claim 14, further comprising a graphical user interface for interactively selecting one  
3 or more computer-based settings, files, and other data for transfer.

1 28. A system for transferring, across a network, computer-based settings, files, and other  
2 data, as per claim 14, wherein said one or more requesting computer-based devices comprise at  
3 least a first and second device with disparate operating systems and said version of one or more  
4 selected groups stored within said associated computer storage is selected by said network server  
5 to make the unload compatible with the operating system of the requesting device.

1 29. A system for transferring, across a network, computer-based settings, files, and other  
2 data, as per claim 14, wherein said one or more requesting computer-based devices comprise at  
3 least a first and second device with disparate formats and said version of one or more selected  
4 groups stored within said associated computer storage is selected by said network server to make  
5 the unload compatible with the format of the requesting device.

1 30. A method for transferring information from a first computer-based device to a web site, for  
2 temporary storage and for later transfer of the stored information from the web site to a second  
3 computer-based device, the method comprising the steps of:

4 establishing a communication link between a first computer-based device and a  
5 web site having a storage capability;

6 scanning the first computer-based device, via the web site, to determine the  
7 information contained on the first computer-based device;

8 allowing a user to select which of the scanned information, determined by the web

9 site, is to be uploaded from the first computer-based device onto the web site for temporary  
10 storage; and

11 transferring the information, contained on the first computer-based device and  
12 selected by the user, onto the web site for temporary storage.

1 31. The method according to claim 30, further comprising the steps of:

2 establishing communication link between a second computer-based device and  
3 the web site;

4 scanning the second computer-based device, via the web site, to determine  
5 information contained on the second computer-based device;

6 displaying the information, from the first computer-based device temporarily  
7 stored on the web site, to the user;

8 allowing the user to select which of the temporary information, from the first  
9 computer-based device and stored on the web site, is to be downloaded from the web site onto  
10 the second computer-based device; and

11 downloading the selected information from the web site onto the second  
12 computer-based device.

1 32. The method according to claim 30, further comprising the steps of, prior to scanning the  
2 first computer-based device, having the user to set up a personal account at the web server  
3 system; and

4 requiring the user to assign a password to the personal account at the web server  
5 system to restricted access to the personal account.

1 33. The method according to claim 30, further comprising the step of, after establishing a  
2 communication link but before scanning the first computer-based device, downloading software  
3 from the web server to the first computer-based device to facilitate interaction between the first  
4 computer-based device and the web site.

1 34. The method according to claim 30, further comprising the step of storing the information  
2 obtained from the first computer-based device, during the scan via the web site, in a data base.

1 35. The method according to claim 30, further comprising the step of providing a message to  
2 the first computer-based device to indicate whether the transfer of the information, selected by  
3 the user, successfully occurred from the first computer-based device onto the web site for  
4 temporary storage.

1 36. The method according to claim 32, further comprising the steps of requiring the user to  
2 enter account number and password information, prior to the user of the second computer-based  
3 device being provided with access the personal account of the user at the web server system.

1 37. The method according to claim 31, further comprising the step of, after establishing a  
2 communication link but before scanning the second computer-based device, downloading  
3 software from the web server to the second computer-based device to facilitate interaction  
4 between the second computer-based device and the web site.

1 38. The method according to claim 31, further comprising the step of storing the information  
2 obtained from the second computer-based device, during the scan via the web site, in a database.

1 39. The method according to claim 31, further comprising the step of providing a message to

the second computer-based device to indicate whether the transfer of the selected and temporarily stored information successfully occurred from the personal account of the user at the web site onto the second computer-based device.

40. A system for transferring information from a first computer-based device to a web site, for temporary storage and for later transfer of the stored information from the web site to a second computer-based device, the system comprising:

means for establishing a communication link between a first computer-based device and a web site, the web site having storage means for temporary storage of information;

means for scanning the first computer-based device, via the web site, to determine the information contained on the first computer-based device;

means for allowing a user to select which of the scanned information, determined by the web site, is to be uploaded from the first computer-based device onto the web site for temporary storage; and

means for transferring the information, contained on the first computer-based device and selected by the user, onto the web site for temporary storage.

41. The system according to claim 40, further comprising:

means for establishing communication link between a second computer-based device and the web site;

means for scanning the second computer-based device, via the web site, to determine information contained on the second computer-based device;

means for displaying the information, from the first computer-based device temporarily stored on the web site, to the user;

means for allowing the user to select which of the temporary information, from the first computer-based device and stored on the web site, is to be downloaded from the web site onto the second computer-based device; and

means for downloading the selected information from the web site onto the second computer-based device.

42. The system according to claim 40, further comprising, prior to scanning the first computer-based device, means for having the user set up a personal account at the web server system; and

means for requiring the user to assign a password to the personal account at the web server system to restrict access to the personal account.

43. The system according to claim 40, further comprising, after establishing a communication link but before scanning the first computer-based device, means for downloading software from the web server to the first computer-based device to facilitate interaction between the first computer-based device and the web site.

44. The system according to claim 40, further comprising means for storing the information obtained from the first computer-based device, during the scan via the web site, in a database.

45. The system according to claim 40, further comprising means for providing a message to the first computer-based device to indicate whether the transfer of the information, selected by the user, successfully occurred from the first computer-based device onto the web site for temporary storage.

1 46. The system according to claim 41, further comprising the means for requiring the user to  
2 enter account number and password information, prior to the user of the second computer-based  
3 device being provided with access to the personal account of the user at the web server system.

1 47. The system according to claim 41, further comprising, after establishing a  
2 communication link but before scanning the second computer-based device, means for  
3 downloading software from the web server to the second computer-based device to facilitate  
4 interaction between the second computer-based device and the web site.

1 48. The system according to claim 41, further comprising means for storing the information  
2 obtained from the second computer-based device, during the scan via the web site, in a data base.

1 49. The system according to claim 41, further comprising means for providing a message to  
2 the second computer-based device to indicate whether the transfer of the selected and  
3 temporarily stored information successfully occurred from the personal account of the user at the  
4 web site onto the second computer-based device.

1 50. A method for transporting over a network, computer-based settings, files, and other data  
2 from a first computer-based device to remote computer-based storage, and for later transfer from  
3 said computer-based storage to at least a second computer-based device, one or more steps of  
4 said method performed using one or more remote servers located within said network, said  
5 method comprising:

6 a. establishing a communication link between said first computer-based device and at  
7 least a first of said one or more remote servers;

8 b. downloading at least a first of one or more software programs from said first remote

9 server onto said first computer-based device, said first software program enabling the temporary  
10 extraction of one or more of said computer-based settings, files, and other data;

11 c. providing a user interface for selecting specific ones of said temporarily extracted  
12 computer-based settings, files, and other data for transfer to said computer-based storage;

13 d. upon said selection, said first software program executing routines in conjunction with  
14 said first remote server to transfer said selection to said computer-based storage;

15 e. executing a transfer of said stored computer-based settings, files, and other data to at  
16 least a second computer-based device comprising the steps of:

17 f. establishing a communication link between said second computer-based device and  
18 said first remote server;

19 g. downloading at least a first of one or more software programs from said first remote  
20 server onto said second computer-based device;

21 h. said first software program enabling the transfer and installation of one or more of  
22 said stored computer-based settings, files, and other data;

23 i. providing a user interface for selecting specific ones of said stored computer-based  
24 settings, files, and other data for transfer to said second computer-based device;

25 j. upon said selection, said first software program executing routines in conjunction with  
26 said first remote server to transfer and install said selection to said second computer-based  
27 device.

1 51. A method for transporting over a network, computer-based settings, files, and other data  
2 as per claim 50, wherein said communications utilize the HTTP protocol.

1 52. A method for transporting over a network, computer-based settings, files, and other data

2 as per claim 50, wherein said network comprises the Internet, said first remote server comprises  
3 a web server and said first software program is downloaded via a website controlled by said web  
4 server.

1 53. A method for transporting over a network, computer-based settings, files, and other data  
2 as per claim 50, wherein said network comprises an enterprise network and said first remote  
3 server comprises an enterprise server.

1 54. A method for transporting over a network, computer-based settings, files, and other data  
2 as per claim 50, wherein said first software program utilizes at least a first directive file, in  
3 extended markup language format and creates a second directive file, in extended markup  
4 language format.

1 55. A method for transporting over a network, computer-based settings, files, and other data  
2 as per claim 54, wherein said first and second directive files are created using the following  
3 steps:

4 said first software program issuing a command to said first remote server;

5 said first remote server querying a database server regarding information on where to  
6 collect at least said settings on said first computer-based device;

7 said database server sending a resultant set containing said information on where to  
8 collect settings, files and other data to said first remote server;

9 said remote server converting said resultant set into a data stream of XML tags thereby  
10 creating said first directive;

11 said first software program gathering said settings, files, and other data by parsing said



12 first directive file, and

13 creating said second directive file, in XML format, by encapsulating said gathered

14 settings, files, and other data.

1 56. A method for transporting over a network, computer-based settings, files, and other data

2 as per claim 55, wherein said step of querying said database server further comprises:

3 running an active server page (ASP) on said first remote server, and

4 creating an active data object (ADO) to transfer data regarding location of settings in said

5 first computer-based device.

1 57. A method for transporting over a network, computer-based settings, files, and other data

2 as per claim 55, wherein said issued command is a HTTP POST command.

1 58. A method for transporting over a network, computer-based settings, files, and other data

2 as per claim 55, wherein said step of downloading said first directive file with settings

3 information in XML tag format onto said second computer-based device is accomplished via an

4 HTTP POST command.

1 59. A method for transporting over a network, computer-based settings, files, and other data

2 as per claim 55, wherein said step of parsing said first or second directive files is accomplished

3 via an XML parser.

1 60. A method for transporting over a network, computer-based settings, files, and other data

2 as per claim 50, further comprising undoing said installed settings and returning to original

3 settings upon receiving an undo command.

1 61. A method for transporting over a network, computer-based settings, files, and other data  
2 as per claim 50, wherein said first software program comprises a C++ plug-in.

1 62. A method for transporting over a network, computer-based settings, files, and other data  
2 as per claim 50, wherein said first software program further includes ActiveX support.

1 63. A method for transporting over a network, computer-based settings, files, and other data  
2 as per claim 50, wherein said executed routines are Javascript routines.

1 64. A method for transporting over a network, computer-based settings, files, and other data  
2 as per claim 50, wherein said user interface is a set of HTML pages.

1 65. A method for transporting over a network, computer-based settings, files, and other data  
2 as per claim 50, wherein said first or second computer-based devices include any of the  
3 following: personal computer systems, laptops, portable computers, net devices, palm computers,  
4 or Web and WAP phones.

1 66. A method for transporting over a network, computer-based settings, files, and other data  
2 as per claim 50, wherein said settings or files comprises any of the following: system settings,  
3 application settings, document settings, desktop settings, e-mail settings - including address book  
4 settings, bookmarks, or cookies.

1 67. A system for transferring specified computer settings between one or more clients and  
2 one or more servers across the Internet, said system comprising:  
3 one or more web application servers, at least one of said web application servers  
4 operatively controlling a first website;

one or more binary data servers operatively connected to said one or more web

application servers;

one or more database servers operatively connected to said one or more web application

servers, and

a client program downloaded to said client from said first website, said client program

collecting and returning to said one or more binary data servers said specified computer settings

based on parsed and executed XML directives originating from said database server and

transferred to said client from said website.

68. A system for transferring specified computer settings between one or more clients and one or more servers across the Internet, as per claim 67, wherein said client program comprises one or more of: an ATL DLL core module, web call module, file transfer module, and browser interface.

69. A system for transferring specified computer settings between one or more clients and one or more servers across the Internet, as per claim 68, wherein said XML directives are replaced with SGML or HTML directives.

70. A system for transferring specified computer settings between one or more clients and one or more servers across the Internet, as per claim 68, wherein said parsed and executed XML based directive(s) enable an intelligent subset selection of available client settings, files or data.

71. A system for transferring specified computer settings between one or more clients and one or more servers across the Internet, as per claim 68, wherein said clients include any of the following: personal computer systems, laptops, portable computers, net devices, palm computers,

4 or Web and WAP phones.

1 72. A system for transferring specified computer settings between one or more clients and  
2 one or more servers across the Internet, as per claim 68, wherein said settings comprise any of  
3 the following: system settings, application settings, document settings, files, desktop settings, e-  
4 mail settings - including address book settings, bookmarks, or cookies.

1 73. A method for transporting over an HTTP network, computer-based settings, one or more  
2 steps of said method performed using one or more remote servers located within said HTTP  
3 network, said method comprising:

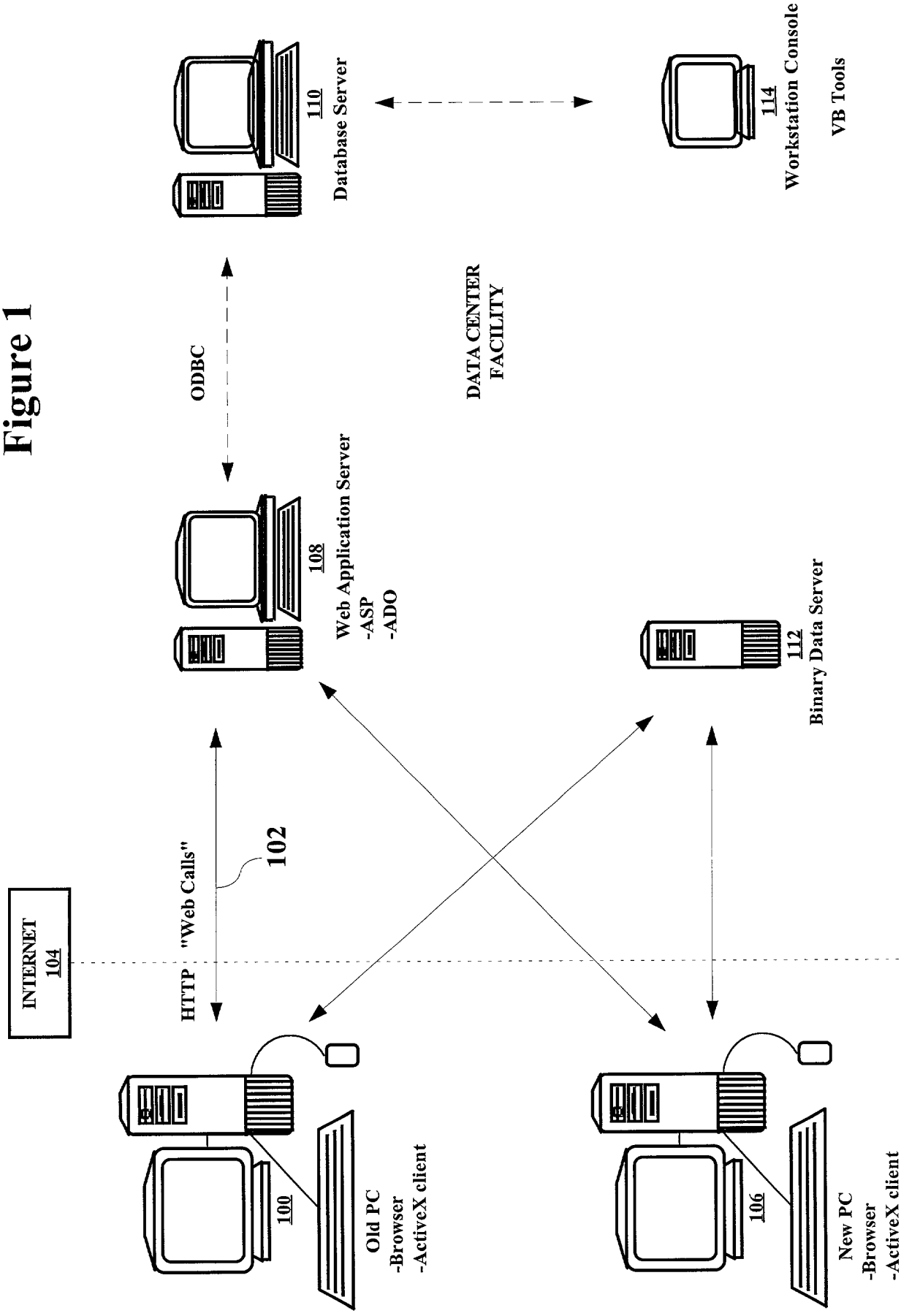
4 downloading from a first of said one or more remote servers a software plug-in to a  
5 computer-based device requesting transfer of said computer-based settings;  
6 using said first software plug-in to execute routines in conjunction with said first remote  
7 server to transfer said settings across said HTTP-based network.

1 74. A method for transporting over an HTTP network, computer-based settings, as per claim  
2 73, wherein said settings comprises any from the following list: hardware settings, system  
3 settings, attached device settings, application settings, document settings, files, desktop settings,  
4 files, data, e-mail settings, address book settings, bookmarks, and cookies.

ABSTRACT OF THE DISCLOSURE

A method and system for transferring information from a first computer-based device to a web site, for temporary storage and later transfer of the stored information from the web site to a second computer-based device. First, a communication link is established between a first computer-based device and the web site. Next, the first computer-based device is scanned, via the web site, to determine the information contained on the first computer-based device. The user then selects which of the scanned information is to be uploaded from the first computer-based device onto the web site for temporary storage. Finally, the selected information is transferred from the first computer-based device onto the web site for temporary storage. Once retrieval of the temporarily stored information is desired, the user establishes a communication link between a second computer-based device and the web site. The second computer-based device is scanned, via the web site, to determine the information contained on the second computer-based device. The temporarily stored information, from the first computer-based device on the web site, is then displayed to the user and the user selects which of this temporary information, from the first computer-based device, is to be downloaded from the web site onto the second computer-based device. The selected information is finally downloaded from the website onto the second computer-based device.

Figure 1



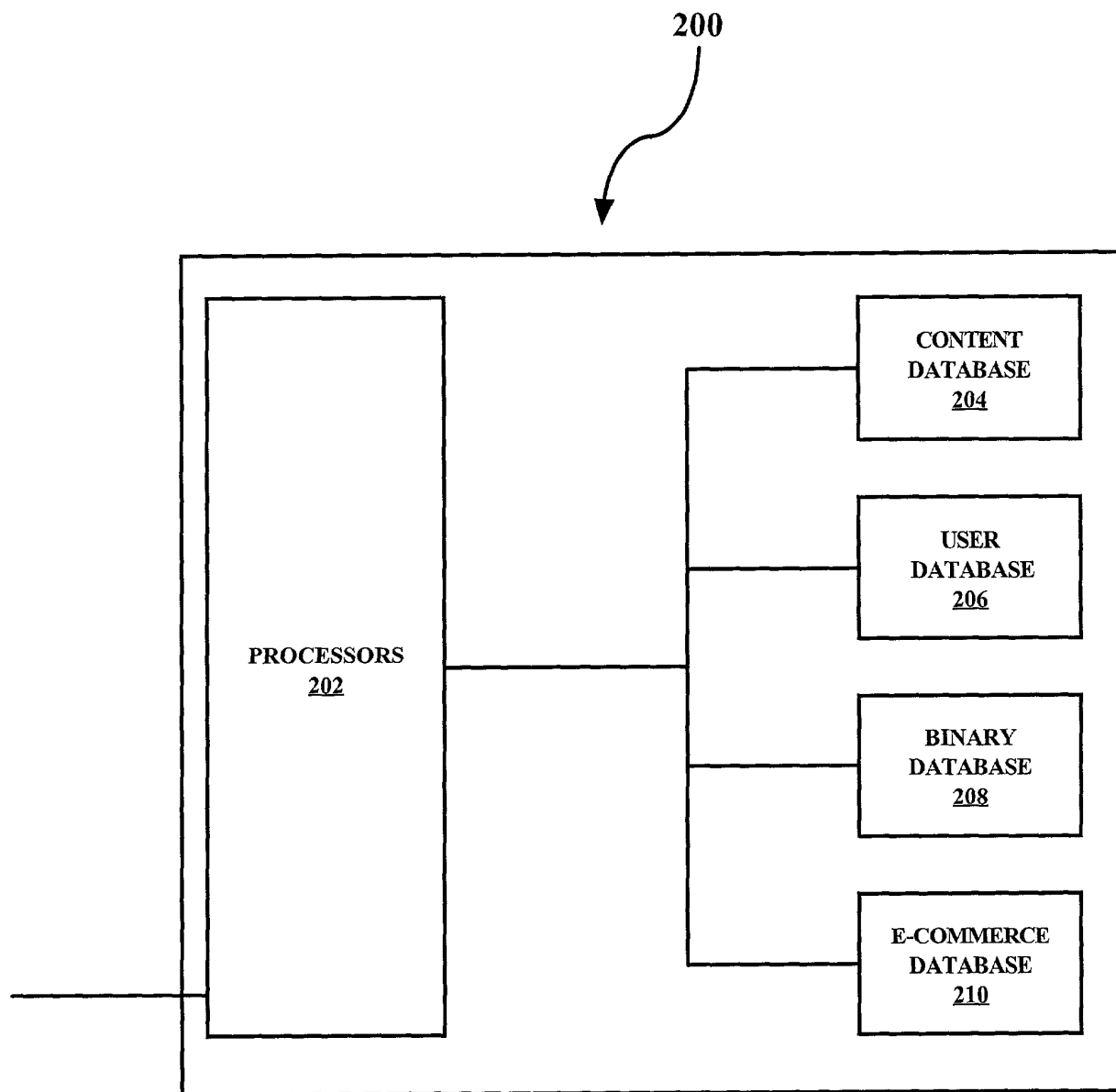


Figure 2

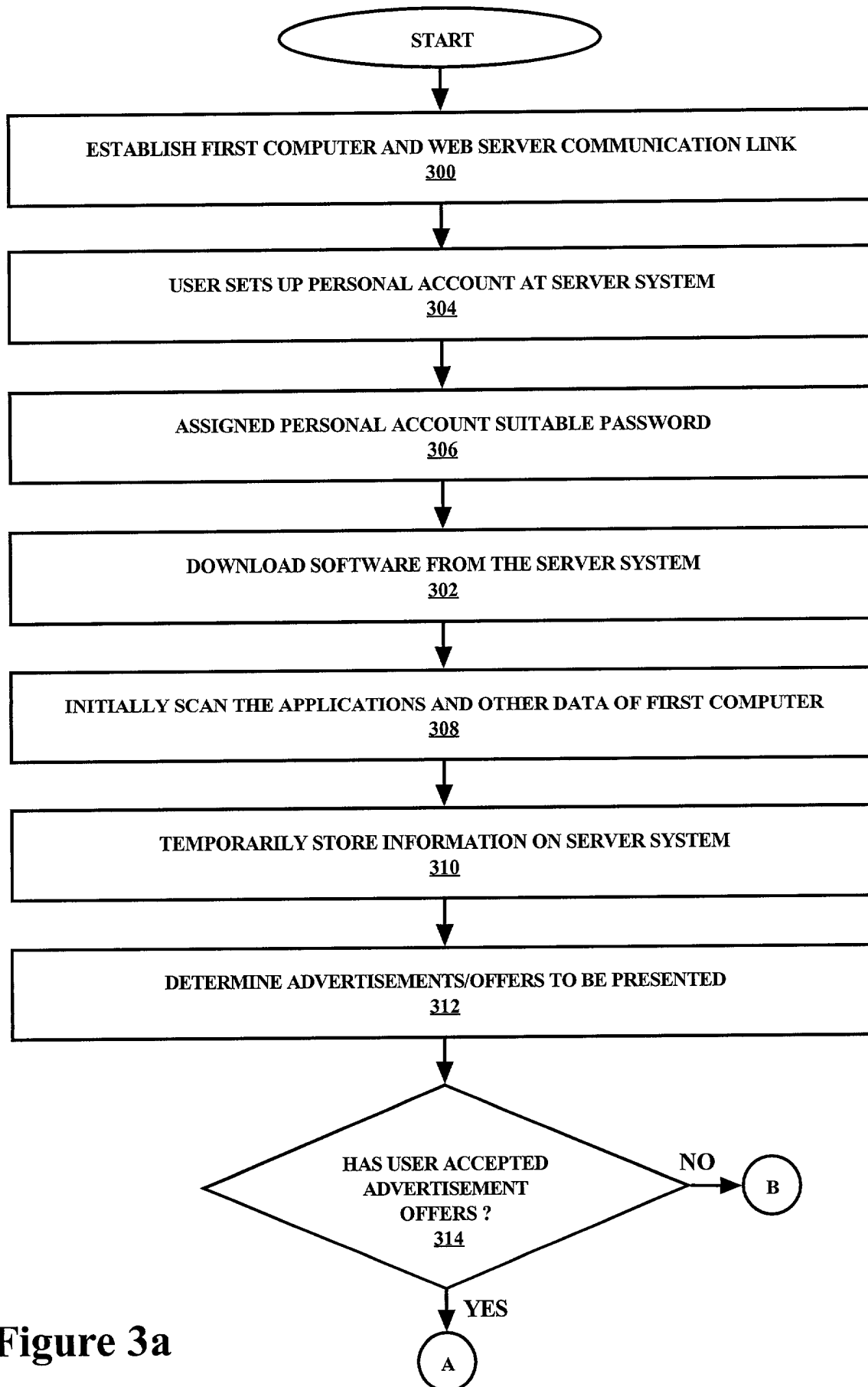
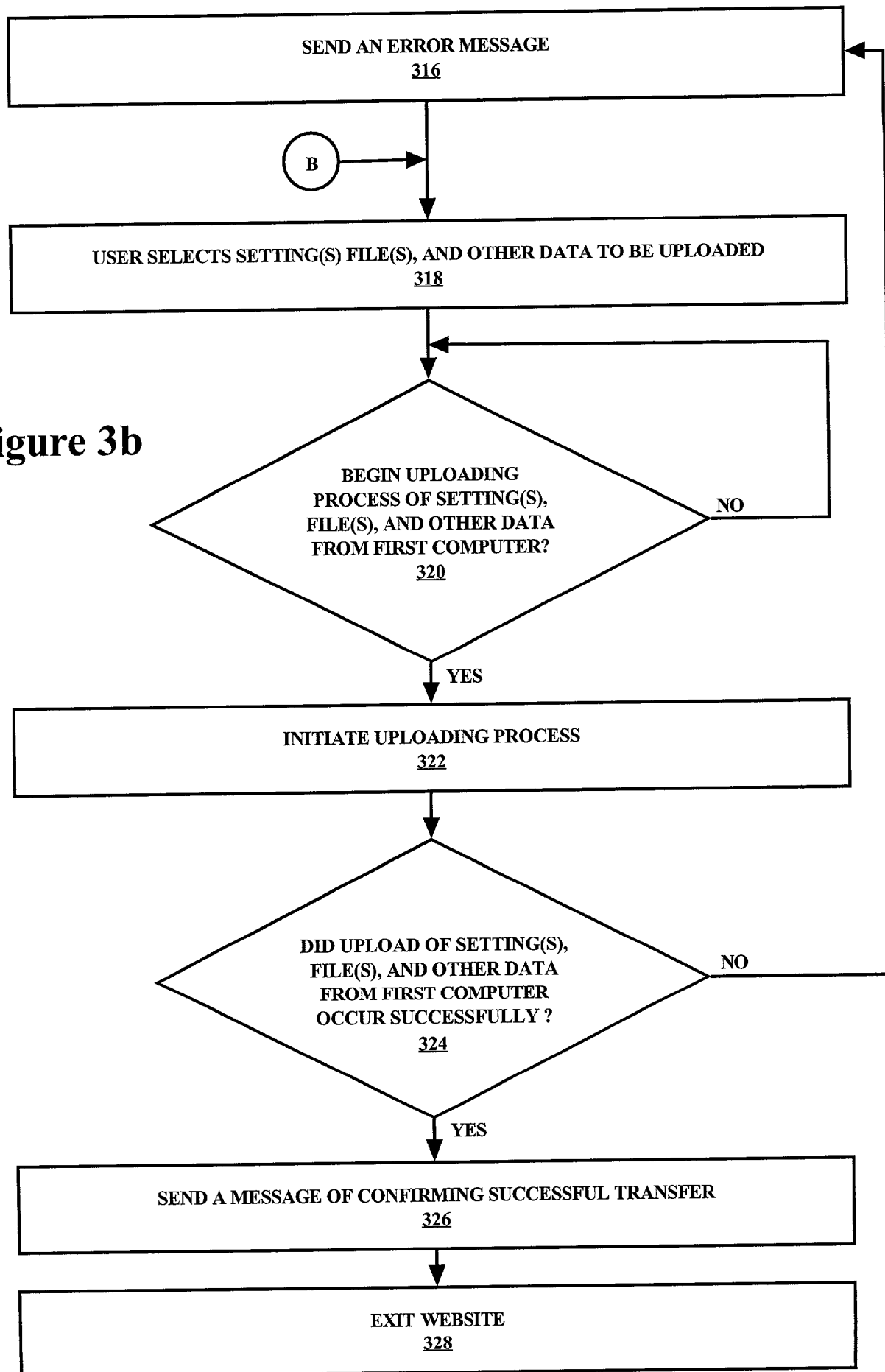


Figure 3a



Figure 3b



**START 400**

**ESTABLISH SECOND COMPUTER AND WEB SERVER COMMUNICATION LINK**  
**401**

ENTER PERSONAL ACCOUNT AND PASSWORD  
404

```

graph TD
    406{406 WAS PERSONAL ACCOUNT AND  
PASSWORD CORRECTLY ENTERED ?}
    406 --> 407[407]
    406 --> 408[408]
  
```

**DOWNLOAD SOFTWARE FROM THE SERVER SYSTEM**  
**402**

INITIALLY SCAN THE APPLICATIONS AND OTHER DATA OF SECOND COMPUTER  
408

# TEMPORARILY STORE INFORMATION ON SERVER SYSTEM

## 410

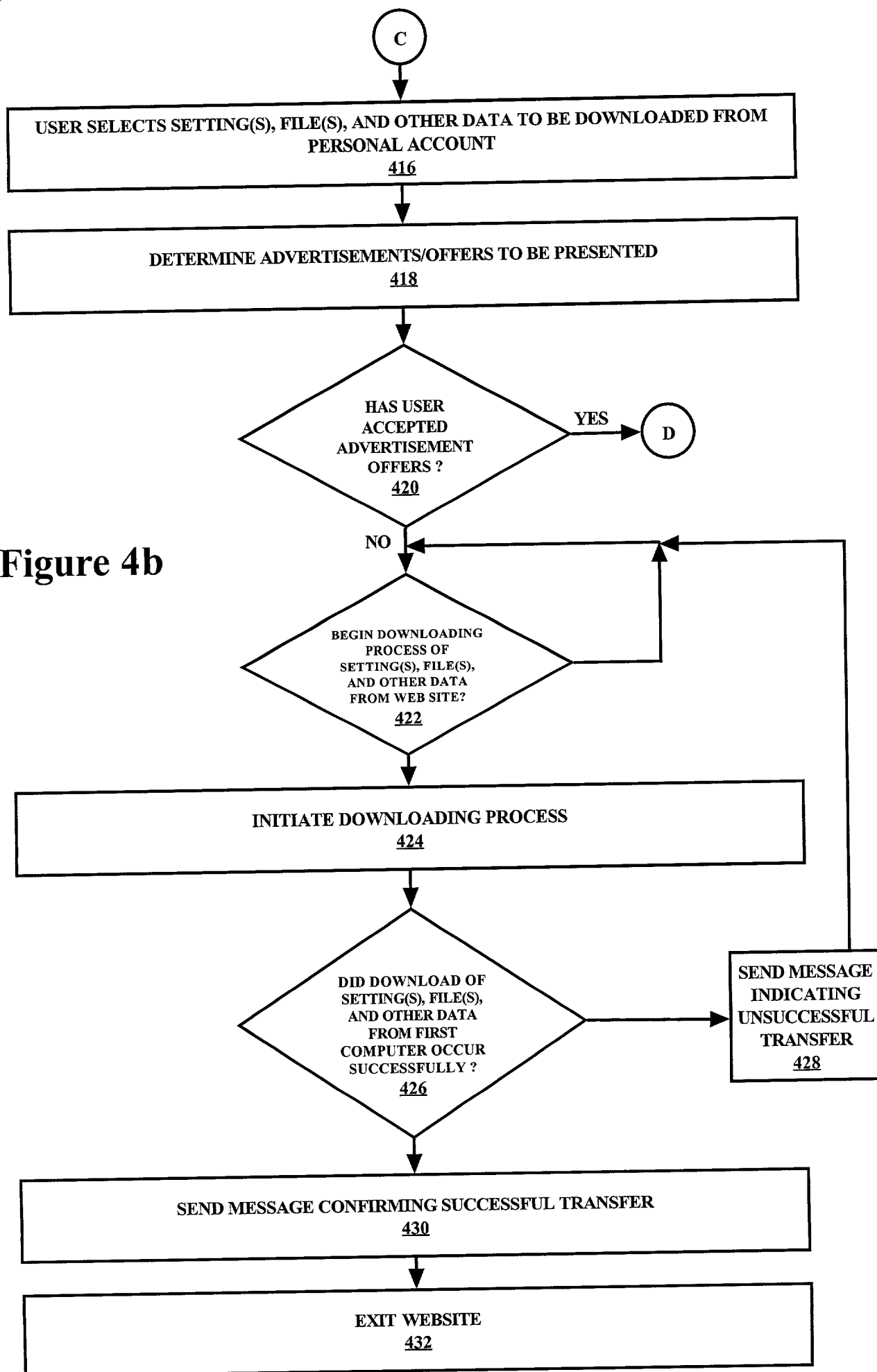
# COMPARE AND CORRELATE SCANNED AND STORED INFORMATION

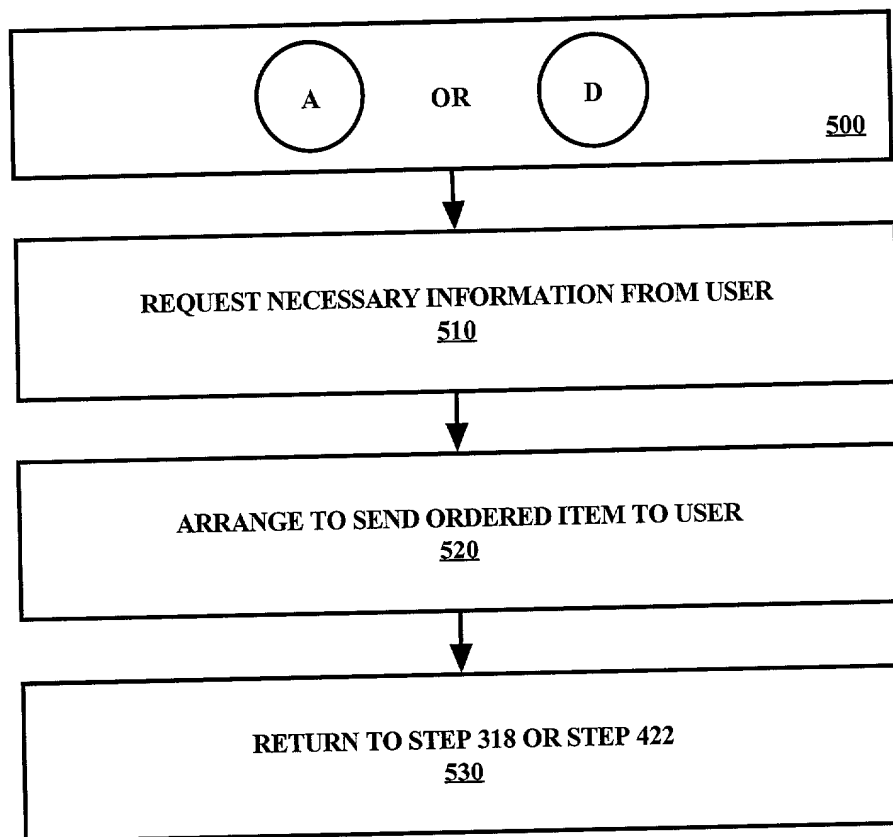
## 412

DISPLAY INFORMATION WHICH CAN AND CANNOT BE TRANSFERRED  
414

### Figure 4a

a) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
b) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
c) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
d) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
e) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
f) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
g) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
h) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
i) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
j) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
k) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
l) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
m) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
n) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
o) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
p) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
q) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
r) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
s) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
t) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
u) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
v) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
w) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
x) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
y) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002
z) $\chi^2$ Test	
$\chi^2$	10.0
df	1
p-value	0.002





**Figure 5**

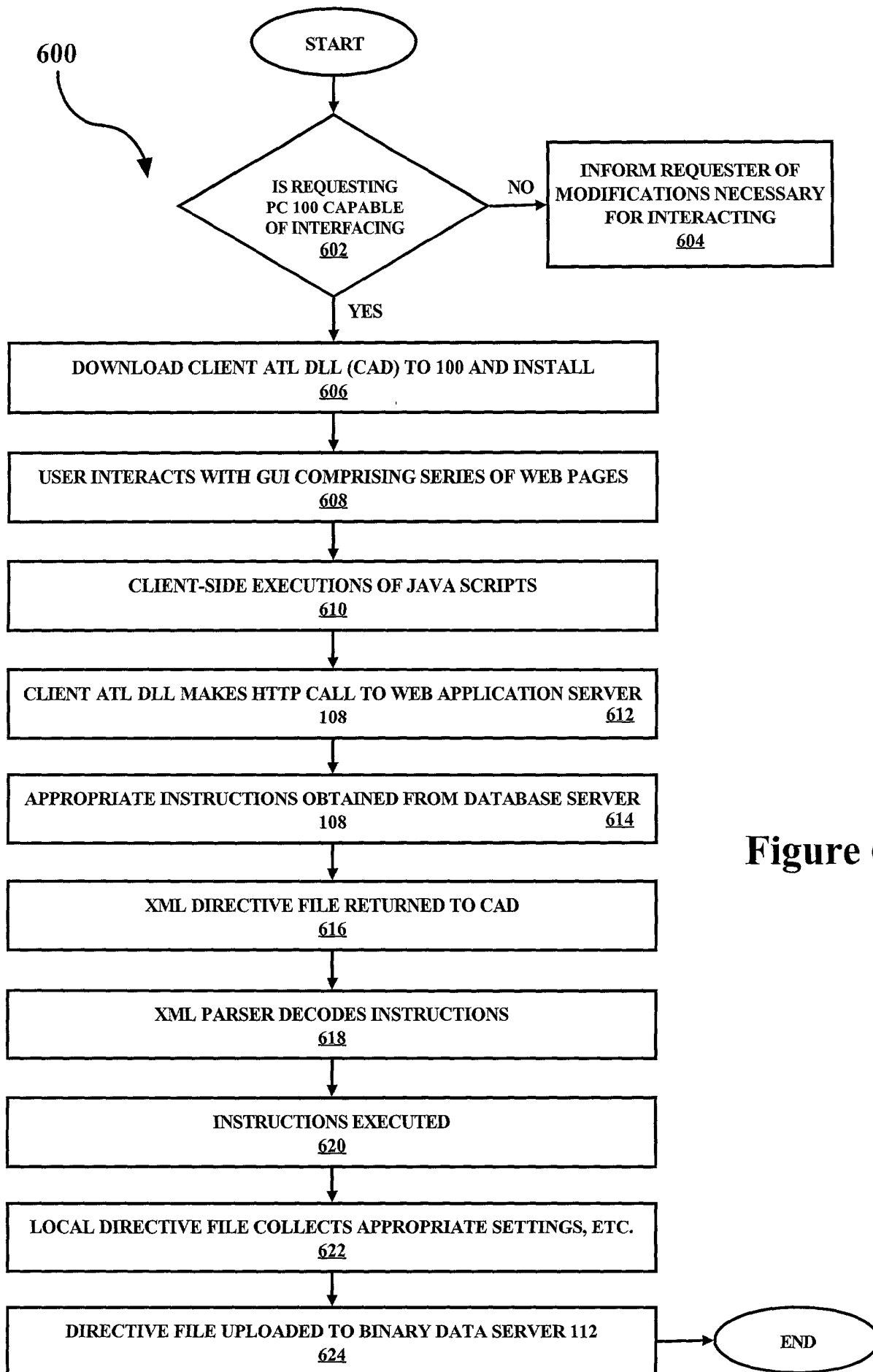


Figure 6

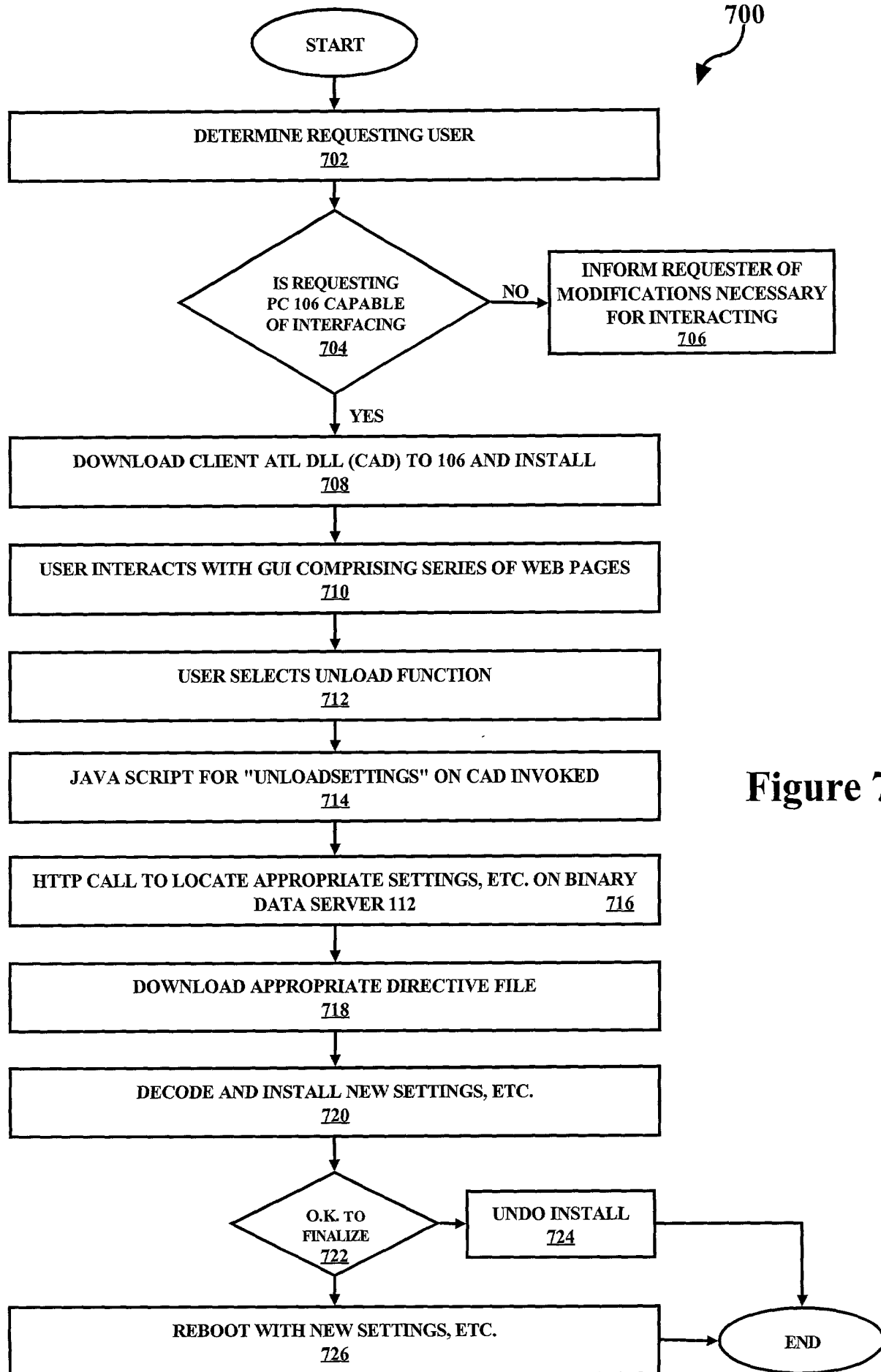
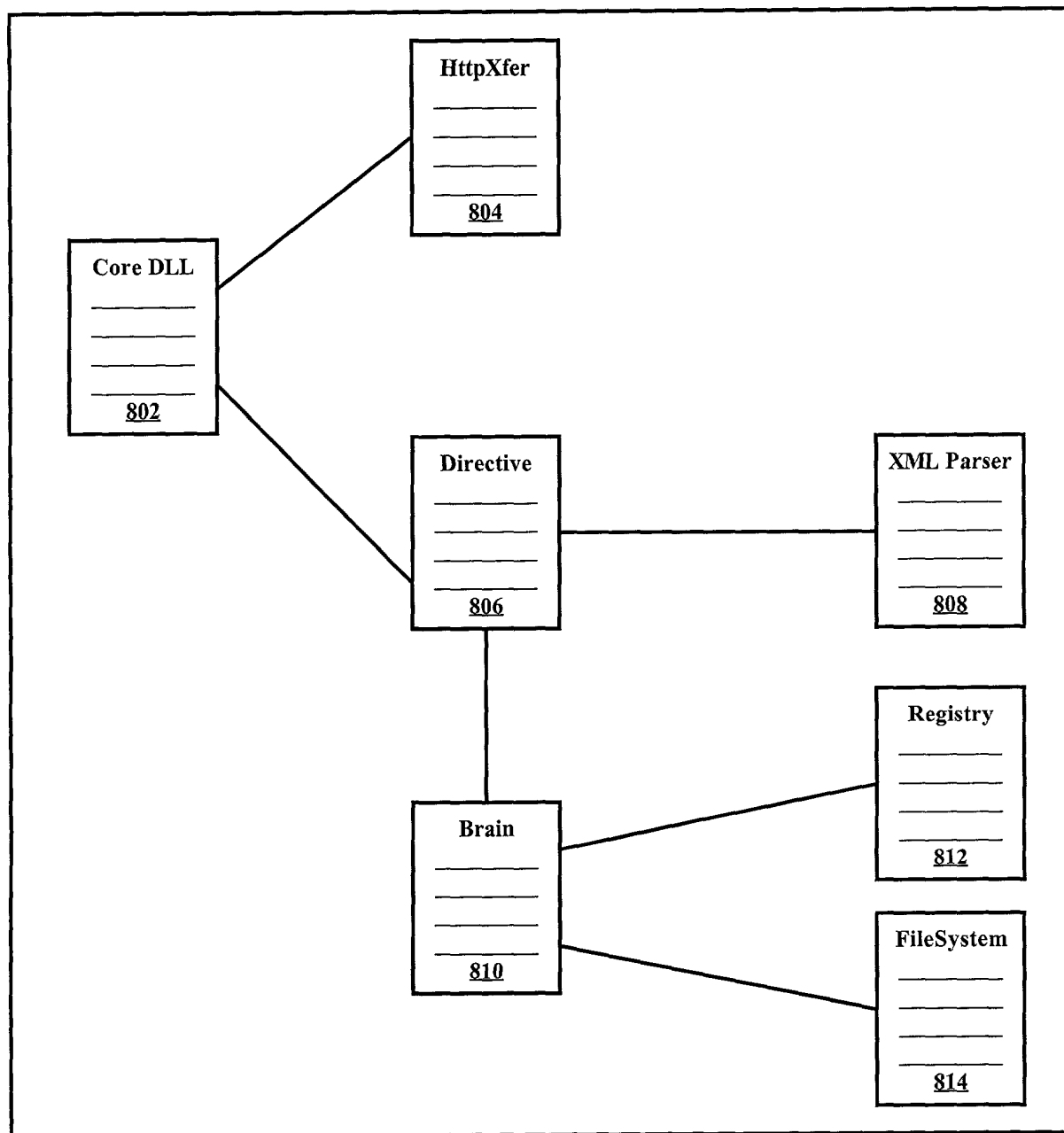


Figure 7



**Figure 8**

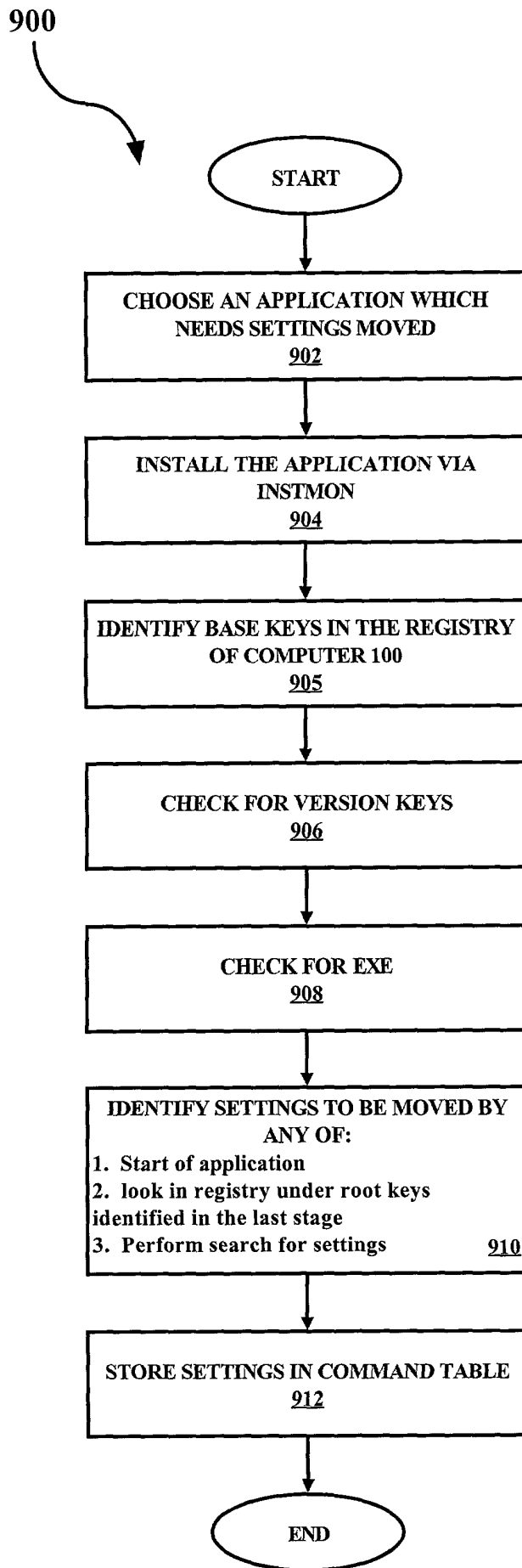
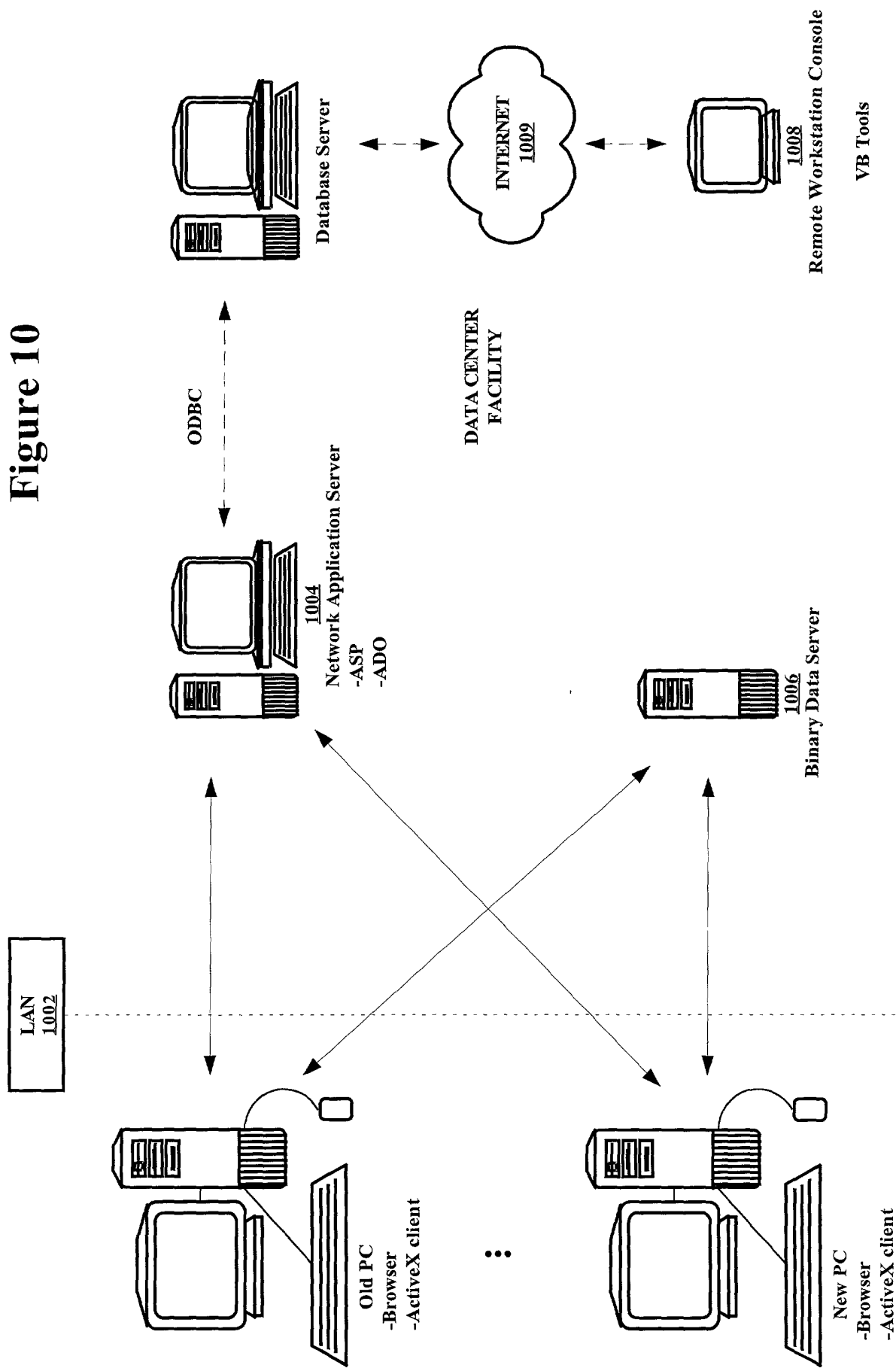


Figure 9



Figure 10







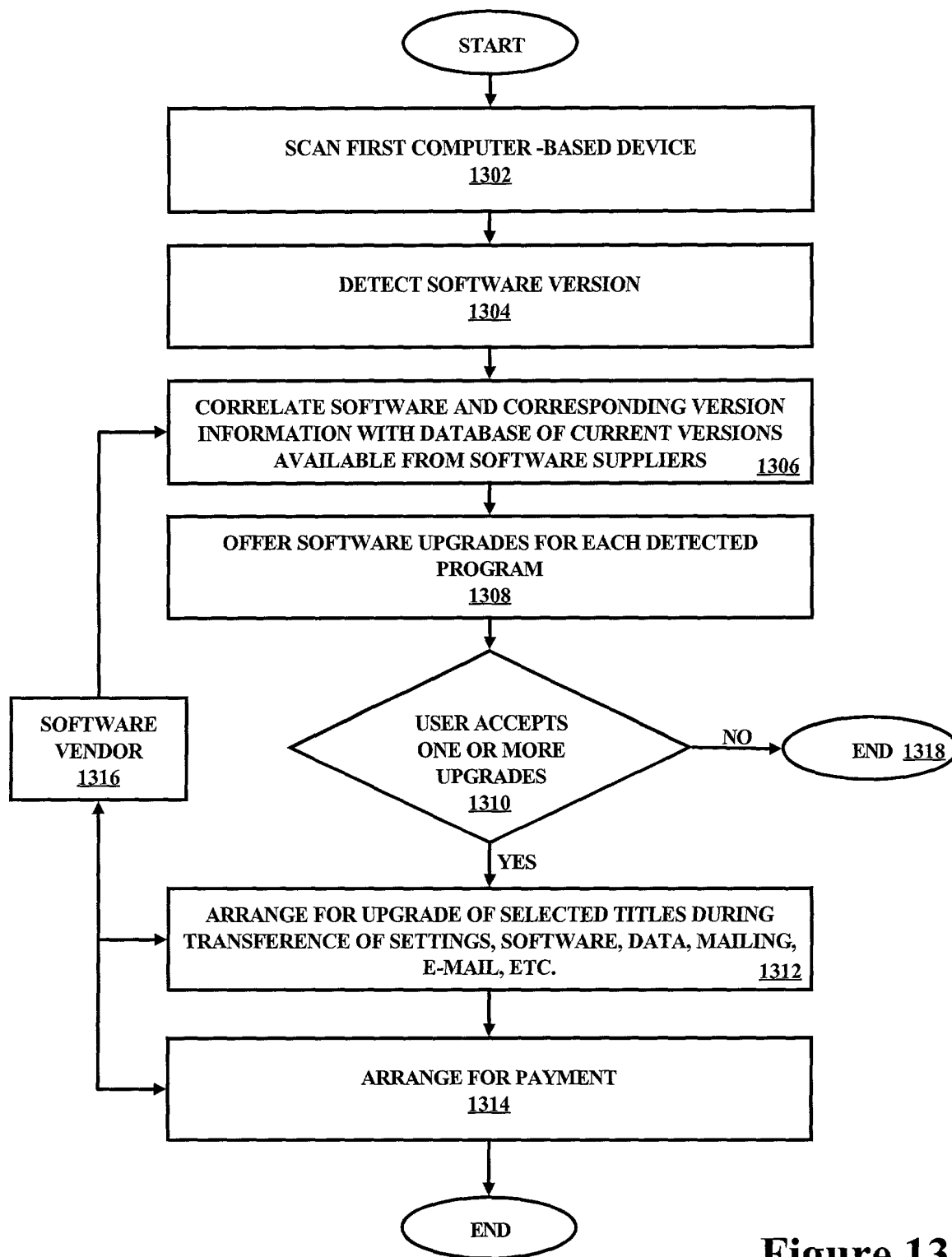


Figure 13



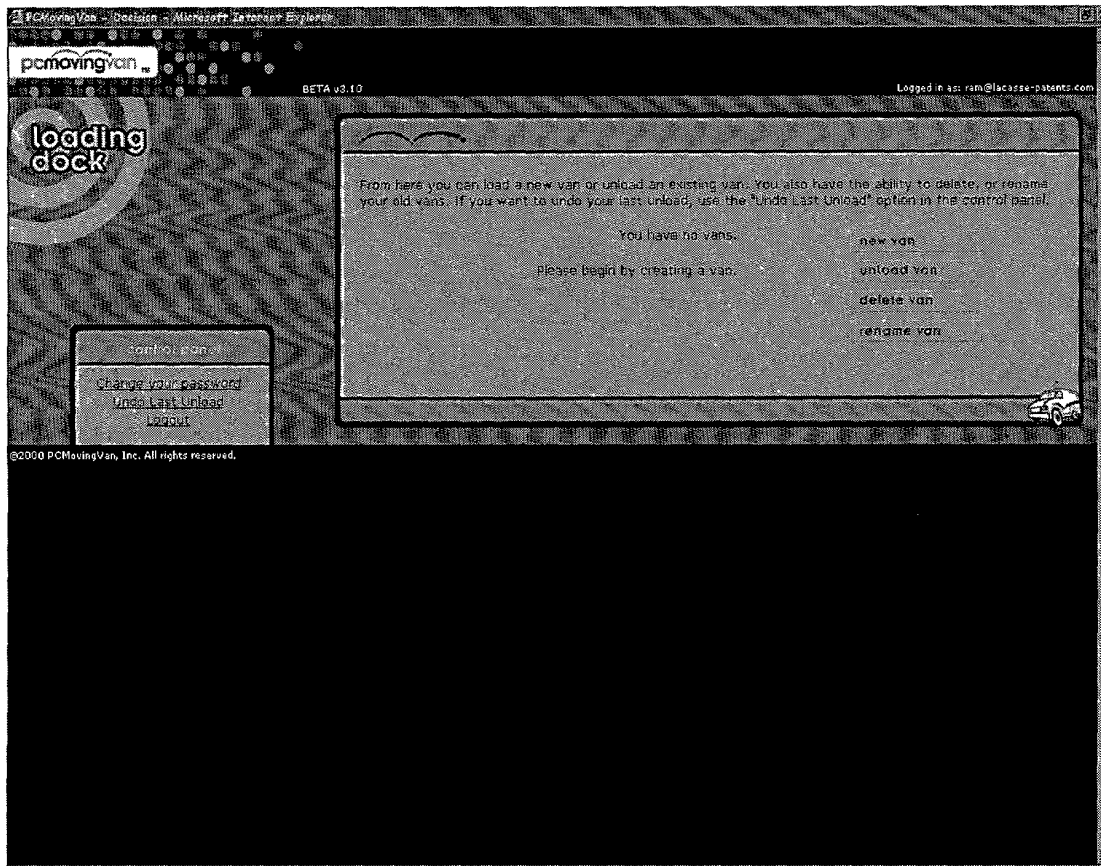


Figure 15

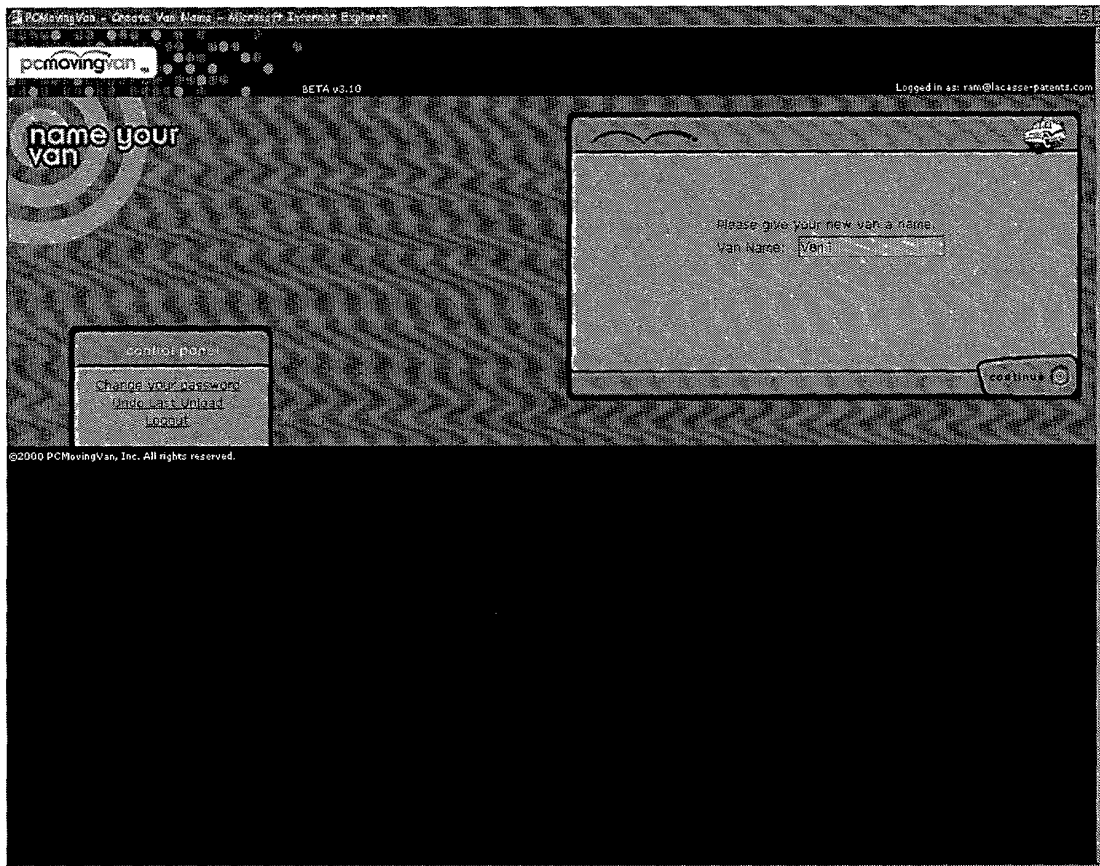


Figure 16

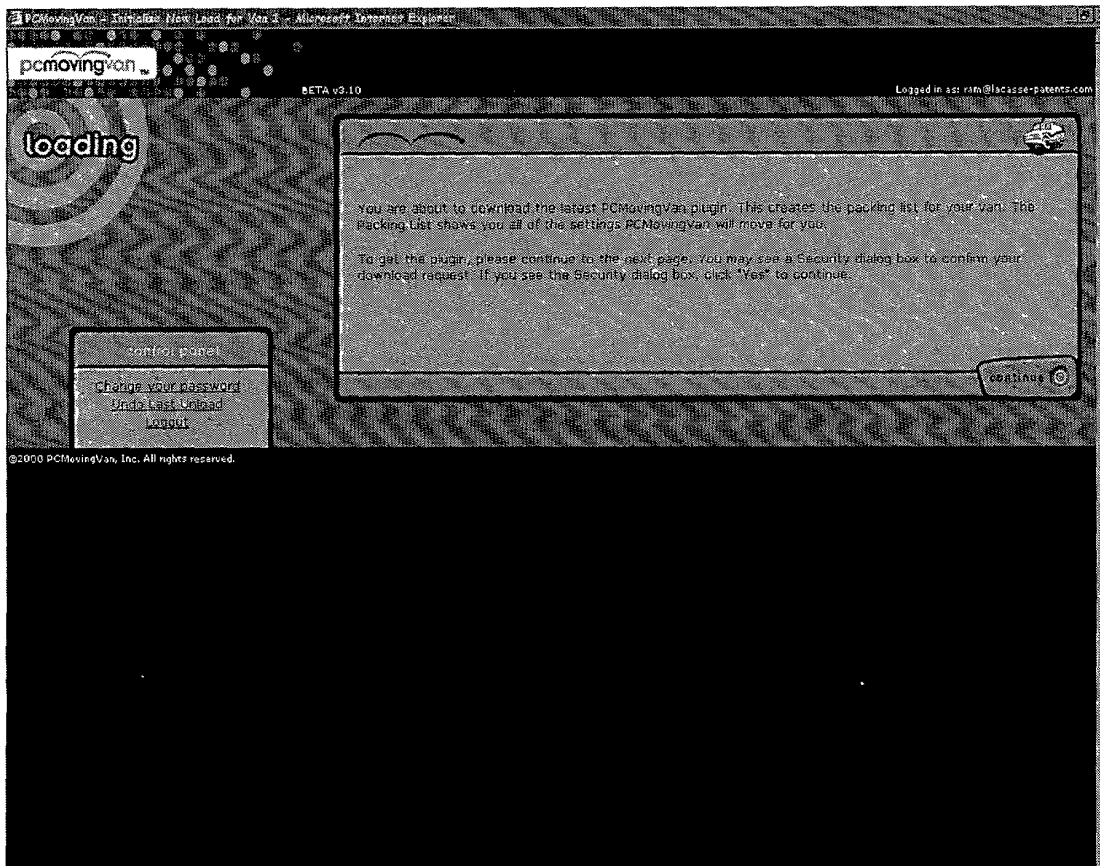


Figure 17



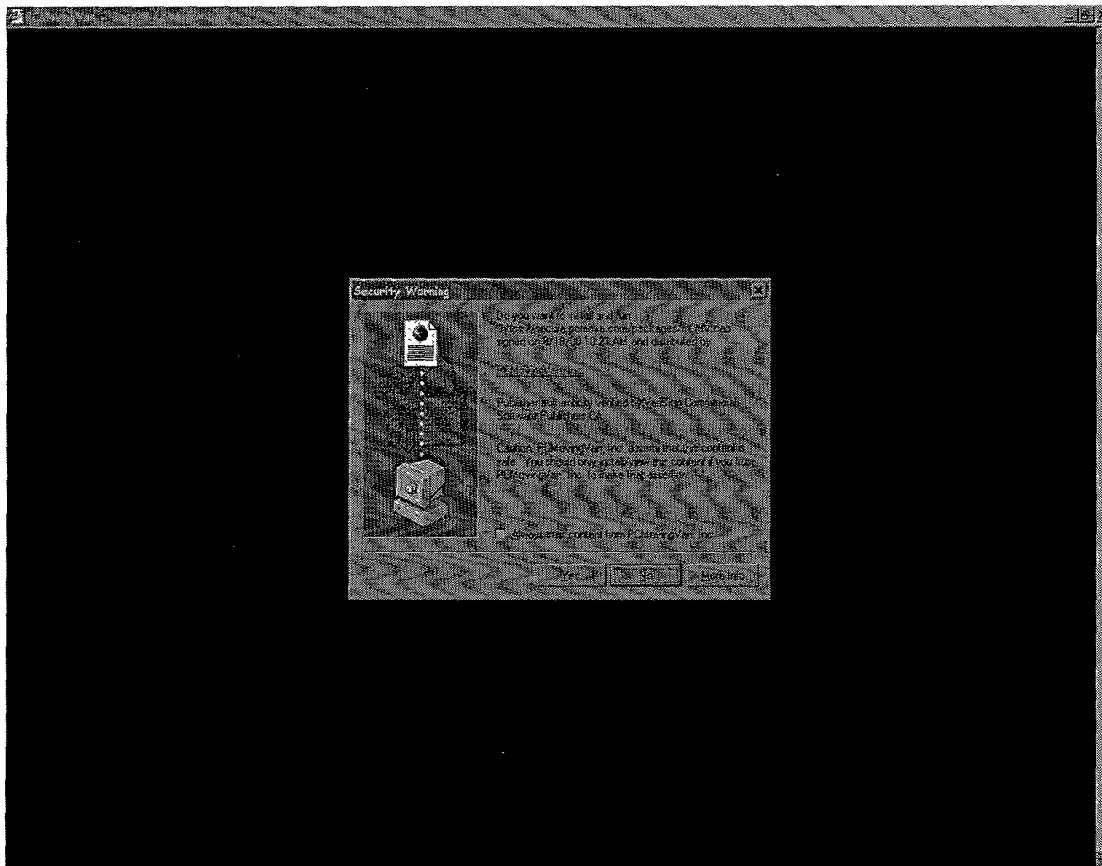


Figure 18

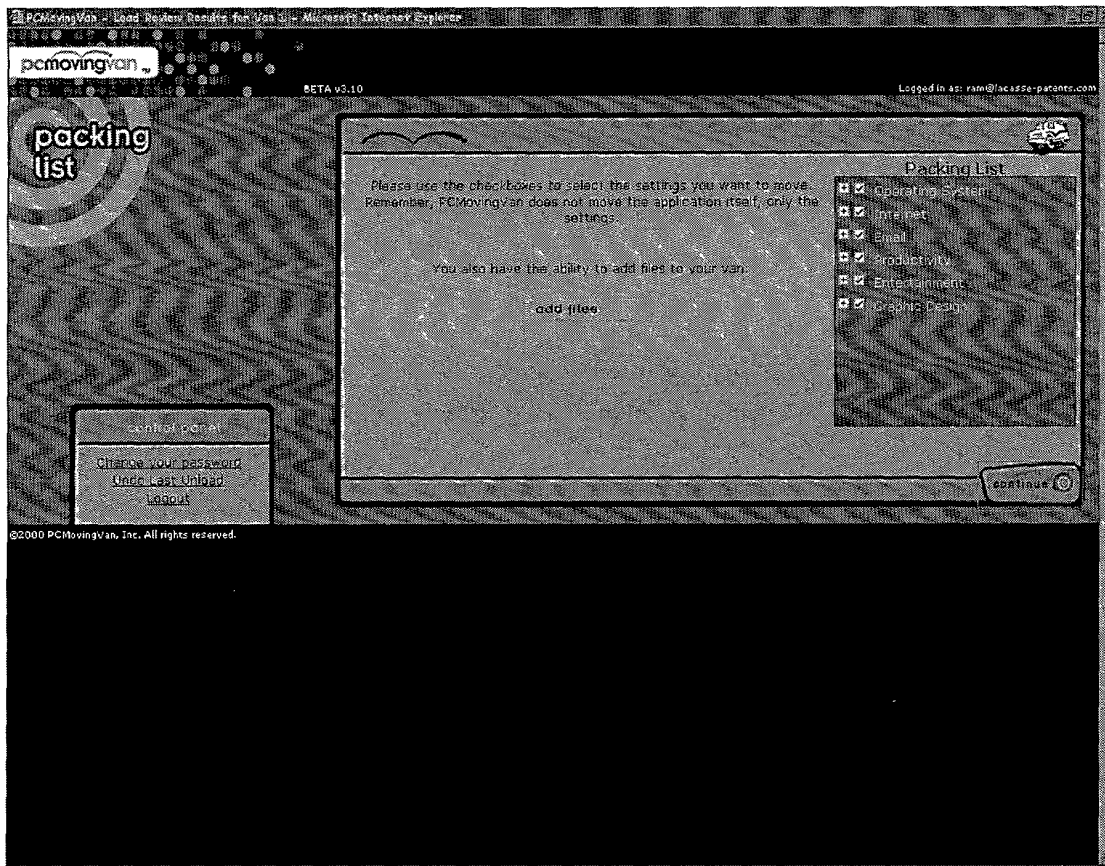


Figure 19

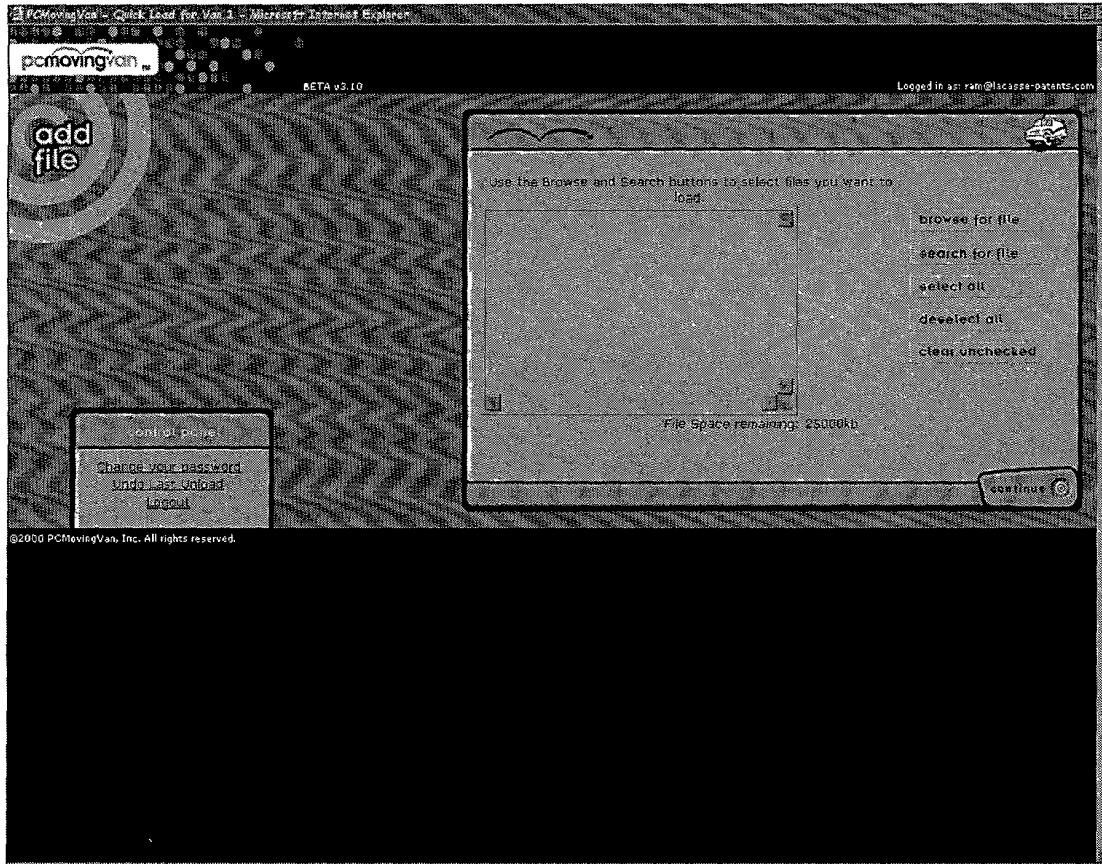


Figure 20

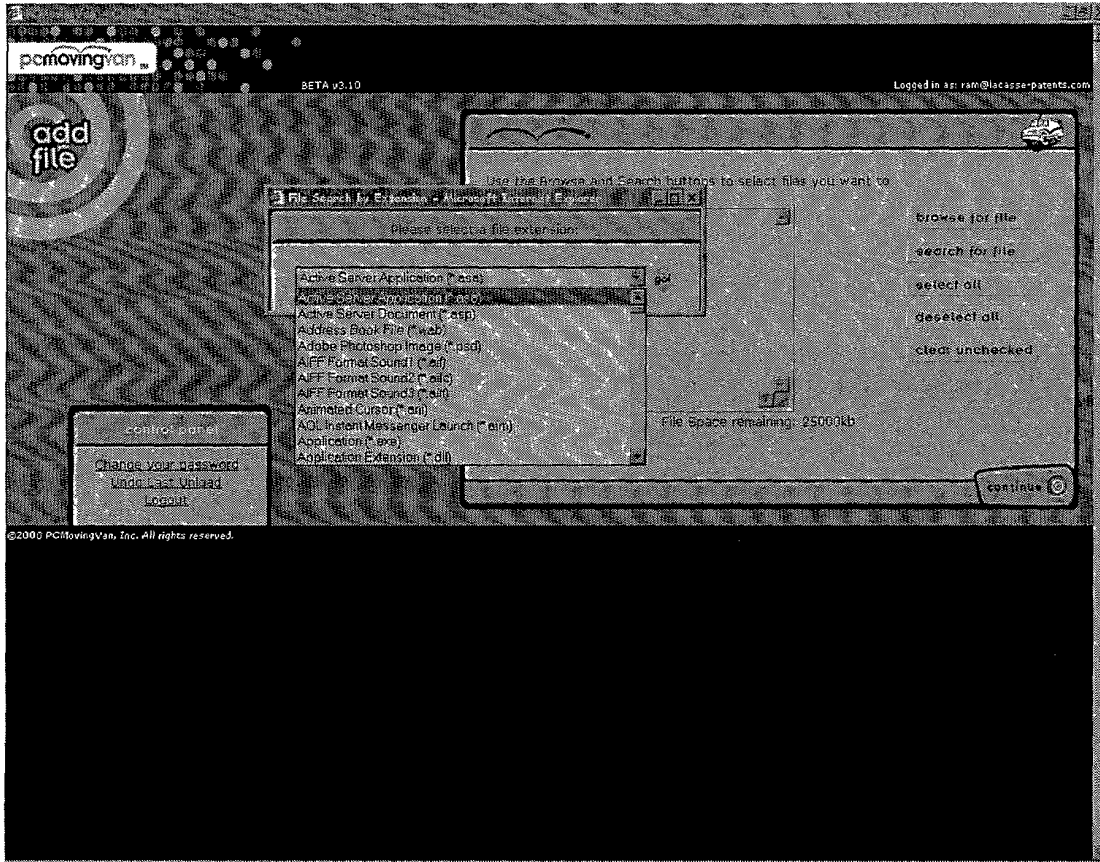


Figure 21



Figure 22

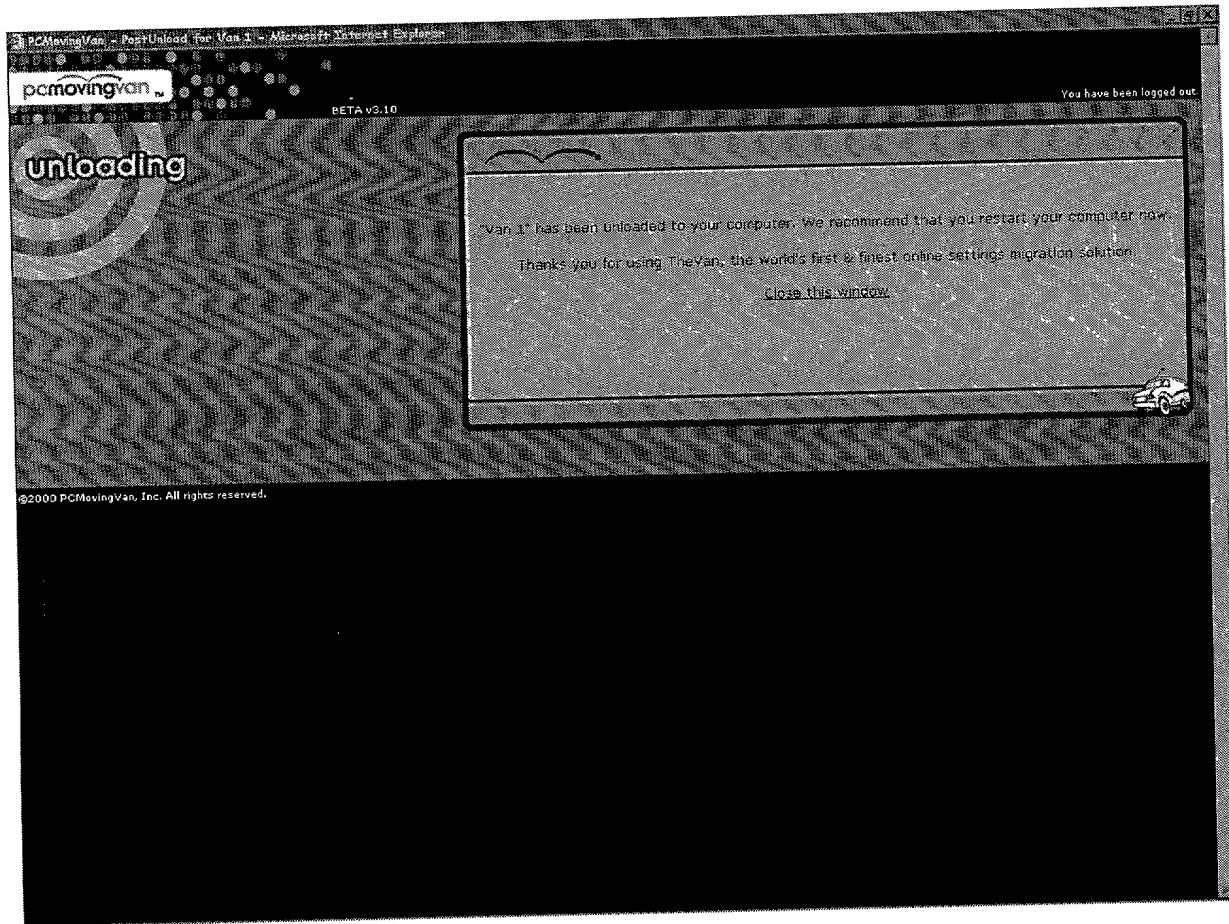


Figure 23

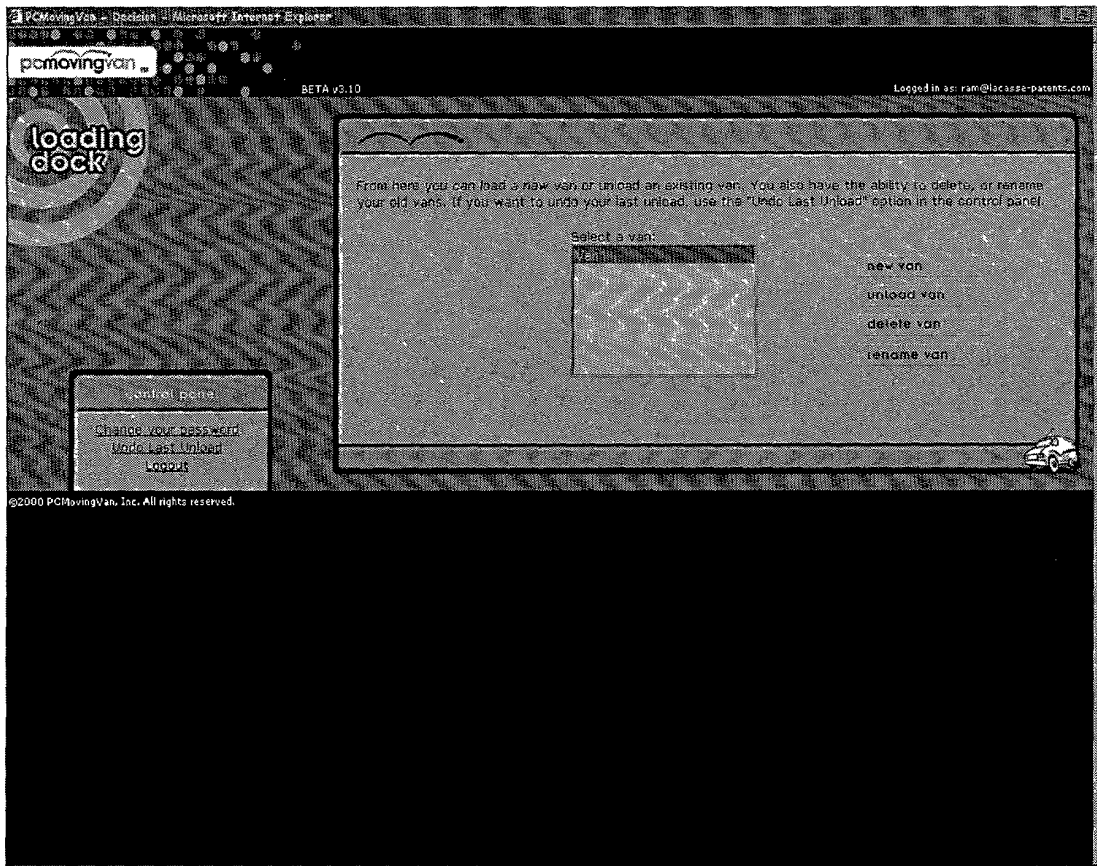


Figure 24

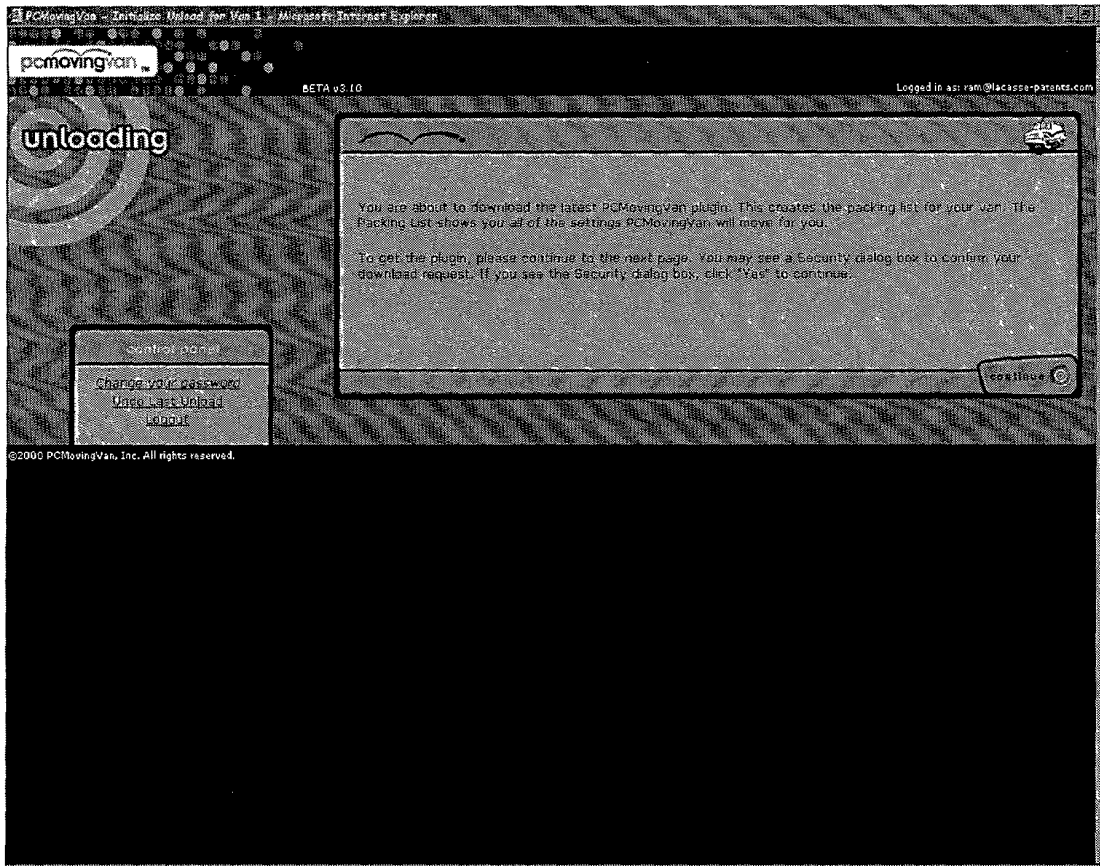


Figure 25



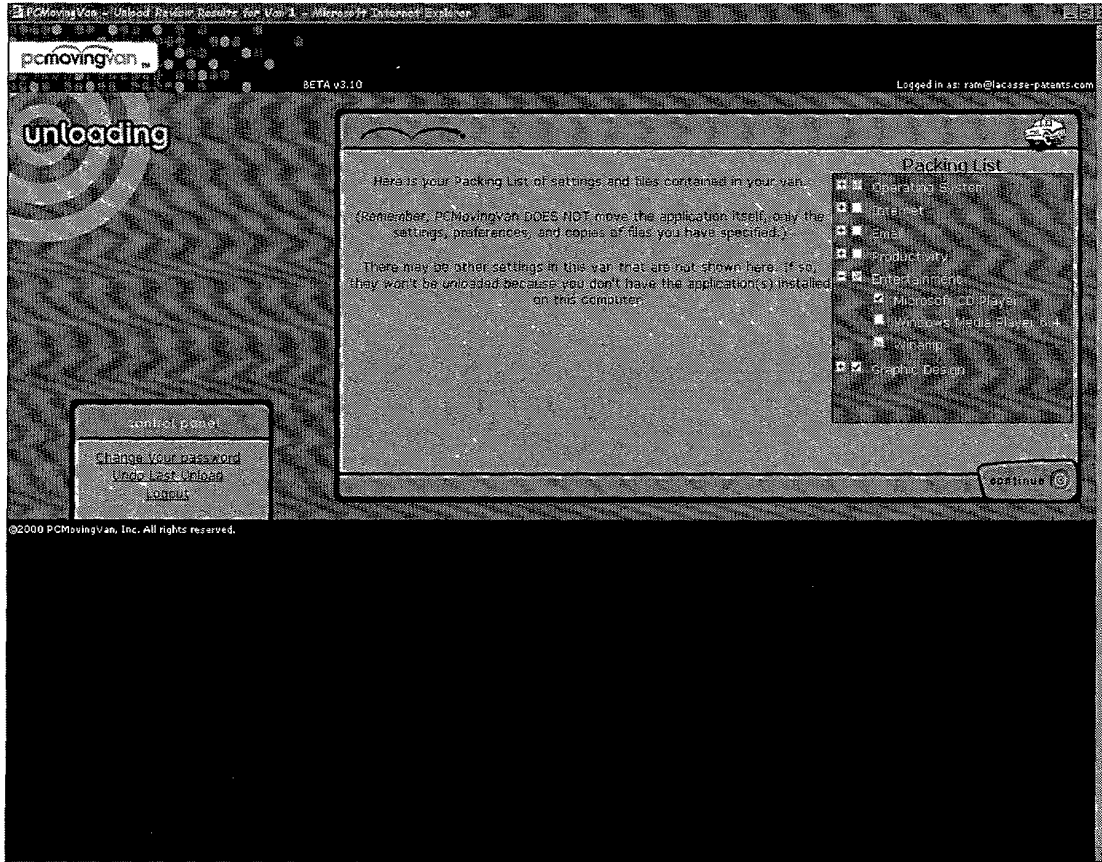


Figure 26



Figure 27



Figure 28

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
DECLARATION FOR PATENT APPLICATION

INVENTOR(S):

Lynch et al.

TITLE:

System for Transporting Application Settings, Files and Other Data From One Computer to  
Another Computer

DOCKET NO.:

PA-1003222

TO THE HONORABLE COMMISSIONER OF PATENTS AND TRADEMARKS:

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled, System for Transporting Application Settings, Files and Other Data From One Computer to Another Computer, the specification of which is attached hereto.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patents or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below any foreign application for patent or inventor's certificate,

or any PCT international application having a filing date before that of the application on which priority is claimed.

<b>Foreign Priority Table</b>			
<b>Number</b>	<b>Country</b>	<b>Day/Month/Year Filed</b>	<b>Priority Claimed?: Y/N</b>

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, § 1.56 which became available between the filing date of the prior application and the National or PCT international filing date of this application.

<b>Application No.</b>	<b>Filing Date</b>	<b>Status-patented, pending, abandoned</b>
<b>Application No.</b>	<b>Filing Date</b>	<b>Status-patented, pending, abandoned</b>

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below.

<b>Application No.</b>	<b>Filing Date</b>
75/836,301	3/29/00
<b>Application No.</b>	<b>Filing Date</b>

**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Randy W. Lacasse (34,368)  
Kevin E. Greene (46,031)

Send Correspondence To: Lacasse & Associates  
Randy W. Lacasse, Esq.  
2001 Jefferson Davis Highway  
Suite 806  
Arlington, VA 22202

Direct Telephone Calls: (703) 415-1015

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

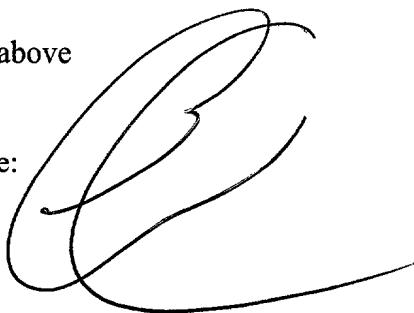
Full name of first joint-inventor: Gerard D. Lynch

Residence: 43B High Street, Newburyport, MA, 01950, Essex County

Citizenship: U.S.

Post Office Address: Same as above

Date: 10/27/00 Signature:



Full name of second joint-inventor: Dana Bruce Berenson

Residence: 30 Fairway Drive, Bradford, MA, 01835, Essex County

Citizenship: U.S.

Post Office Address: Same as above

Date: 10/27/10 Signature: Dana B. Berenson

Full name of third joint-inventor: Andrew Shay Woodard

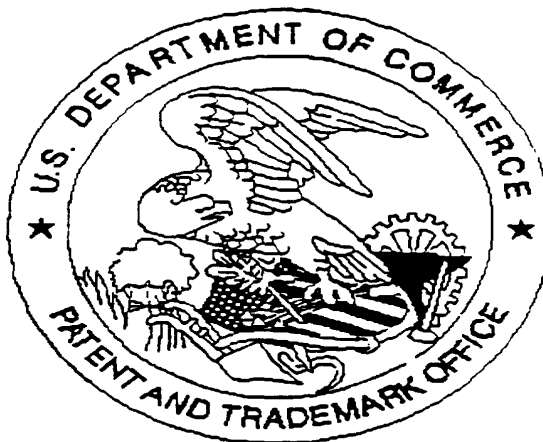
Residence: 2612 St. Mary's Street, Raleigh, NC, 27609, Wake County

Citizenship: U.S.

Post Office Address: Same as above

Date: 11/02/2000 Signature: A. S. Woodard

United States Patent & Trademark Office  
Office of Initial Patent Examination -- Scanning Division



Application deficiencies were found during scanning:

☐ Page(s) \_\_\_\_\_ of \_\_\_\_\_ were not present  
for scanning. (Document title)

☐ Page(s) \_\_\_\_\_ of \_\_\_\_\_ were not present  
for scanning. (Document title)

☒ Scanned copy is best available. *drawings*

SCANNED, # 14